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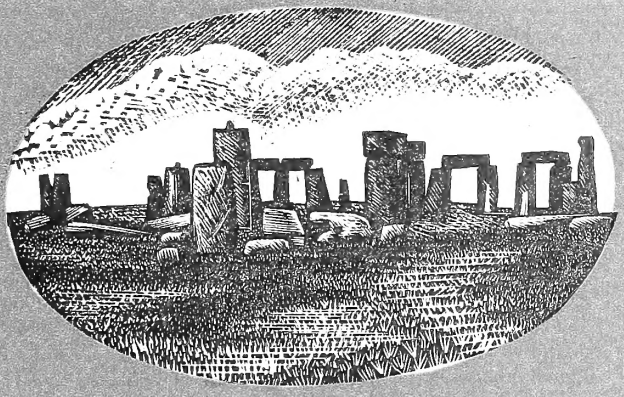

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THE WILTSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY SOCIETY

The Society was founded in 1853. Its activities include the promotion of archaeological and historical work within the County, and of the study of all branches of Natural History; the issue of a Magazine and other publications; excursions to places of archaeological and historical interest; and the maintenance of a Museum and Library.

The subscription rate for membership of the Society is at present as follows: Annual Subscription (minimum), £1 12s. 6d.; Junior Subscription, 10s.; Life Membership, £25. Enquiries about membership should be made to the Secretary of the Society, 41 Long Street, Devizes.

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CONSERVATION AND THE COUNTRYSIDE

THREE MEMORANDA FROM THE WILTSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY SOCIETY

Edited by P. J. FOWLER

INTRODUCTION

AS MOST OF US become increasingly aware of the impact and side-effects of the changes occurring in our environment, so also does the rate and scope of change increase. Nevertheless, steps have been and are being taken at national and local level to preserve, conserve, protect, save—call it what you will—some of the facets of our environment which, for various reasons, an informed minority value more than even the best-conceived of modern developments. Our Society, acting largely and most effectively through its Committee, is one such informed minority, a relatively small number of responsible people who, to translate their collective experience, knowledge and—let us acknowledge this—beliefs into action at the time and place where it is going to matter, must act like a political pressure group. Although a few feel that such activity is not a proper role for an academically-orientated Society like ours, it must be so today, however regrettable the necessity, when we as archaeologists and naturalists cannot but be aware of the widespread disappearance for ever, sometimes through wanton destruction, sometimes through ignorance, of the very evidence we seek to study. If we do not press our interests on amenity, cultural and scholastic grounds in the current highly competitive land-scramble, then we are failing both the heritage which it is our lot to conserve and the studies which we and our successors would wish to pursue. The Society has recently recognized both the danger and the obligation by amending *Rule 1* of its constitution so that one of our aims is now specifically 'to safeguard and conserve the antiquities and the flora and fauna of the region'.

The Committee's proposal to include this aim, approved at the Annual General Meeting on 20th May 1967, came at the end of a year in which the Society had been much involved in the question of preservation, particularly of field monuments. Three memoranda had been drafted, approved and dispatched, and they are printed below, partly so that members shall be aware of the Committee's actions, partly so that the recipients of the memoranda shall know that we have not forgotten, partly *pour encourager les autres*, and partly to provide a permanent and public record that, at this point in time, at least we tried.

Memorandum I was prepared in response to an invitation from the Ministry of Public Building and Works, in August 1966, to submit evidence to the then newly-formed Field Monuments Committee set up by the Minister 'to consider whether, in the light of present day conditions, changes were needed in the Ancient Monuments Acts'. The Society was one of only three county archaeological societies

invited to submit evidence. The creation of the Committee by the Minister represented at last official recognition of what archaeologists and others had known and pressed for a long time: that the provisions of the Acts relating to the preservation of field monuments were inadequate, abused and unenforced. Our memorandum was quickly dispatched but the Committee has not yet reported. Its recommendations are eagerly awaited with interest and hope.

Memoranda II and *III* were prepared following the *Report of the Second Conference* on *The Countryside in 1970* (Roy. Soc. Arts, 1965). In this case the Society took the initiative, responding to the recommendation in the *Report* by Study Group 8 that local authorities should take it upon themselves to use the statutory powers and other resources they already have to preserve natural, historic and other 'Countryside Treasures'. This last phrase would not have been our own choice, but the message of the *Report* was clear enough: the best hope for immediate action lay with local authorities, notably County Councils, and it was up to local societies to ensure that the recommendation was at least known in the corridors of local power and was at best implemented by a joint effort of councillors, officers, and interested parties like our Society.

The Society's Committee approved *Memorandum II* on 2nd March 1967, and it was forwarded to Wiltshire County Council, as was *Memorandum III*, drawn up separately by the Natural History Section. The immediate outcome was that representatives of the Society met the Countryside Sub-Committee of the Town and Country Planning Committee on 10th April 1967, to discuss the case presented in both Memoranda. No similar meetings have since been arranged, and even granted the will, the means for positive and fruitful action are hardly available during the present financial restrictions. Nevertheless, while we compare our slow progress with current developments in Hampshire and Cheshire and find it difficult to understand why, in Wiltshire of all counties, no county archaeologist has been appointed to follow the lead of Staffordshire and Lancashire, the County Council's *Leisure in Wiltshire* (1967) at least explicitly recognizes the increasing field of provision now expected of our major local authorities and indicates how existing thought and action could be developed along the lines we suggest. The sub-title of the booklet specifically acknowledges, however ungrammatically, that the guide is intended for those with 'interests in the countryside' and our paramount interests are precisely these.

Memoranda I and *II* were first prepared for and considered by the Society's Archaeology Sub-Committee, and then submitted to the main Committee for discussion. Both committees unanimously approved them with only slight alterations. The drafts were prepared by F. K. Annable, in his capacity as Hon. Secretary of the Archaeology Sub-Committee, and the present writer. *Memorandum III* was largely drafted by R. S. Barron on behalf of the Natural History Section. A few minor amendments, mainly in layout, spelling and punctuation, have been made in preparing for publication all three Memoranda, originally typed and duplicated in some haste, but they are otherwise exactly as submitted despite the temptation to improve them now.

February, 1968

MEMORANDUM I[1]

RECOMMENDATIONS FOR IMPROVING THE EXISTING LEGISLATION FOR THE PRESERVATION OF ANCIENT MONUMENTS

Over many years officers of this Society have acted in the capacity of archaeological correspondents on behalf of the Ministry of Public Building and Works. Since 1961 it has endeavoured to carry out a more frequent inspection of scheduled monuments over selected areas within its prescribed region.

It has been alarmingly clear with the continually expanding threat to scheduled earthworks through modern agricultural methods and industrial development, and in view of the obvious inadequacy of the Ancient Monuments Act, that the fate of earthwork monuments as a whole is in the balance. Unless rapid and efficient measures are implemented for the preservation of those still surviving, many will, within a few years, be utterly destroyed, and with their loss will go not only much of the visible prehistoric and historic past of this country, but also irreplaceable raw material for the further understanding of the past.

We believe that during this century the attitude of most landowners to ownership of ancient monuments has changed. With the intensification of farming methods, large and small landowners alike are understandably concerned primarily with maximum food production; consequently the existence of field monuments within arable fields constitutes a hindrance to good farming since they must first be respected, and, if left undisturbed, become a harbouring place for rabbits and weeds. Rarely these days does one encounter a farmer with any sense of pride or interest in the scheduled monuments present on his land. It is a situation which encourages a disregard of the Act and, in consequence, an accelerating destruction of earthwork monuments.

The recommendations made below arise from experience within the Society in dealing with the problems relating to the protection of field monuments. Other aspects of the problem are adequately dealt with in the *Memorandum of Possible Improvements under Existing Legislation for the Preservation of Ancient Monuments*, published by the Council for British Archaeology (1965). To this the Society gives its wholehearted support.

SCHEDULING

In Wiltshire, where extensive areas of downland are under cultivation, the Act is virtually ineffective. Normal ploughing is allowed on many scheduled monuments; deep ploughing is not, and theoretically requires three months' notice. It is unrealistic to expect that farmers will hold to these requirements; thus the ultimate destruction of earthworks is inevitable unless ploughing is completely stopped.

If this is impossible, then it is essential to list many more representative sites which must be preserved *at all costs*. At the moment many sites are being destroyed indiscriminately; literally only one or two good examples of some categories of monument still remain.

Where any doubt exists or in the absence of a written undertaking, only State ownership, by compulsory purchase if necessary, will ensure the survival of field monuments. Outright purchase is fairer to the owner; if he voluntarily respects a monument, it simply represents lost ground which harbours rabbits, and encourages the growth and spread of weeds.

As pointed out in the C.B.A. *Memorandum*, the cost of purchasing sites (about £300 per acre) in many cases will be less than the cost of excavation. It also obviates the need for emergency excavation when it is being realized that many sites should be preserved intact, either as being representative of their type, or for investigation at some future date.

Greater promptness is required of the Ministry in acting upon notification of damage to scheduled monuments. The inability of the Inspectorate to bring about successful

prosecutions leaves correspondents with a sense of futility and hopelessness, and in our opinion is one of the greatest failings. Furthermore, the penalties for contravention of the Act, even if applied, are insufficient to act as a deterrent.

Some sort of arrangement might be possible whereby a field monument was purchased and let out specifically for sheep-grazing, thus reducing maintenance costs to the Inspectorate.

INSPECTION AND REMINDERS

Regular inspection of monuments combined with more frequent reminders of scheduling are necessary. It is impossible for this Society to recruit volunteers with enough time available to cover the entire county. The long periods ensuing between each official field inspection make prosecutions almost impossible since it is difficult to prove that destruction took place within the statutory previous 12 months. Farmers nowadays plough, or obliterate, a monument almost with impunity.

Administratively it ought not to be impossible to issue more frequent reminders of scheduling to landowners. Many scheduled monuments in Wiltshire, particularly barrows, no longer exist except as recorded map references, and are to be seen only from the air as crop-marks. If this fact be accepted, and such sites removed from the list of scheduled monuments[2]—ensuring, however, a far stricter preservation of selected representative sites—the task would be by no means so great.

LABELLING

Some form of verbal labelling which states clearly that a monument is protected under the law is essential. The star sign is inadequate, and instances have occurred in this county where they have been uprooted. Its significance is frequently not understood by ploughmen. Labelling would also give added interest to the public.

REGIONAL ORGANIZATION

The Society wholeheartedly supports the recommendation of the C.B.A. that there should be a regional organization of the work of the Inspectorate. If this is ever achieved, it is earnestly hoped that regional departments will collaborate closely with the county societies, and, in Wiltshire, with such bodies as the Royal Commission on Historical Monuments (England).

MEMORANDUM II[3]

LEISURE IN THE COUNTRYSIDE, WITH SPECIAL REFERENCE TO THE PRESERVATION OF ARCHAEOLOGICAL TREASURES

A. THE CASE FOR PRESERVATION

1. *Introduction*

No county throughout the British Isles has greater claim to pre-eminence than Wiltshire in the quantity and variety of its ancient field monuments. Stonehenge and the Avebury complex are unique and internationally famous, and are an irresistible attraction to visitors from all parts of the world. No less unique are the outstanding barrow cemeteries clustered around Stonehenge, amongst the 2,000 or more prehistoric burial mounds concentrated mainly on the chalk regions of Salisbury Plain and the Marlborough Downs, north of Pewsey Vale. Salisbury Plain in particular, with its large tracts of habitable land situated at the centre of natural highways reaching inland from the coasts, constituted an obvious attraction to primitive agricultural people, and inevitably led to the establishment of the region as the economic, religious and political centre of southern Britain in the prehistoric era.

Still more impressive by their sheer size and commanding position are the hill-top fortifications of the pre-Roman Iron Age. Bratton Camp, Liddington and Barbury Castle, Old Sarum, Yarnbury, and Oldbury Camp, are but a few of the Wiltshire hill-forts which unfailingly capture the eye and the imagination of the traveller as he follows the chalk escarpments across the county.

The importance of Wiltshire as a region of outstanding archaeological interest is not confined to field monuments of the prehistoric age. For centuries the downland soils have provided early man with unrestricted opportunity for livestock production and the development of agriculture. Until *c.* 1940, thickly distributed over the Plain and Marlborough Downs were enclosures, farms, villages and field systems, often superimposed, ranging in time from the Neolithic through to the Romano-British and Medieval periods. Many such sites are visible only as complexes of earthen banks, ditches and hollows, but their elucidation is of crucial importance to our understanding of man's social and economic progress from distant antiquity to the present day.

The briefest survey of Wiltshire's ancient monuments is not complete without reference to the famous linear earthwork known as East Wansdyke. Obscure as to its date and purpose, this magnificent frontier dyke, spanning almost the entire breadth of the county, is hardly equalled in length and grandeur by any similar dyke in the British Isles. Set in countryside of superb scenic attraction, and associated along its entire length with monuments of every class and period, it may justly claim to be one of the most spectacular features of the north Wiltshire downs.

2. *The Ineffectiveness of Existing Legislation*

This Society is appalled both at the rate and the effectiveness of destruction of ancient monuments by modern methods of arable farming, afforestation, and industrial development.

Although many field monuments within the county are technically protected by scheduling under the Ancient Monuments Acts, it has become clear that this form of protection has ceased to be effective. Within a selected number of parishes in the Devizes and Marlborough regions, for example, the past six years have shown that many scheduled barrows and earthworks are mutilated each year by ploughing, and others have been erased completely.

Damage to field monuments is not confined to the lesser sites. The Iron Age hill-fort on Sidbury Hill is continually mutilated by tanks and tracked vehicles during military exercises. In recent years both the Manton and Lanhill chambered long barrows have been bulldozed, and during 1960 a 400 yards stretch of the Wansdyke near its eastern termination was filled with boulders, earth and timber, bulldozed from a nearby copse, and still remains uncleared.

Of the Roman road network known to exist in the county only minor stretches are now traceable above ground. One of the finest examples in Britain came under threat recently as a result of the proposal to plough the surviving section of the Bath-Mildenhall Roman road at Beckhampton. Only prompt action by the county Society resulted in its preservation, after an enquiry, by the Minister of Works.[4]

The enormous threat to the few surviving examples of village or settlement sites of Romano-British and Medieval date is made clear from a ground and air survey carried out in 1964 by the Royal Commission on Historical Monuments (England). Of previously recorded Romano-British settlements in Wiltshire, about half had been completely destroyed by ploughing or other activities. Of the remainder only 10 per cent. were sufficiently well preserved to enable adequate ground plans to be made. Their loss is especially to be deplored in view of the archaeological potentialities of such sites, and the need for extensive excavation in the future.

It is thus manifestly clear from the examples cited that the cumulative results of observed damage over a number of years offer little hope for the long-term survival of field monuments within the county.

3. *The National Importance of Wiltshire Antiquities*

The rich endowment of this county with visible monuments representing all periods of antiquity merits its constitution as a region of national archaeological importance, and its safeguarding as far as is possible for the benefit and enjoyment of future generations.

For this reason, and in view of the inadequacy of the scheduling procedure, this Society looks to the Wiltshire County Council to lend its support and authority towards devising some additional means of preserving effectively and permanently its heritage of antiquity. No other authority exists within the county with power to create the machinery necessary to safeguard absolutely Wiltshire's field monuments. In certain places, individual sites or areas of outstanding archaeological importance may only be preserved by outright purchase.

Wiltshire's ancient monuments are not to be saved merely because they are old or of interest to the scholar, but because they offer unlimited opportunities to the individual for contemplation, enjoyment and study. These are permanent values to which humanity must always return for physical and spiritual refreshment. If example be needed, then such values are expressed in the Hardy novels, or the poetry and prose of Edward Thomas and Richard Jefferies, to name obviously outstanding authors within the wide corpus of English literature whose thought and writings have been deeply influenced by the essentially antique character of the Wessex landscape.

4. *Amenity*

Most classes of society today have a greater leisure and, with the advent of the motor-car, a far greater mobility. These factors naturally encourage families to seek further afield for diversion and enjoyment. Inevitably this must create an increasing public demand for access to areas, particularly in this county, where much of the scenery is enhanced by the existence of ancient monuments of outstanding interest. The preservation of areas or sites of archaeological interest as *Amenity Areas*, without the spoliation of their essential character, should therefore be considered.

It is worth noting that limited although fast diminishing areas exist within the county which were thickly populated from prehistoric to medieval times but which have so far escaped modern agricultural activity. Here it is possible to observe land development through successive centuries of ancient agricultural usage. These 'fossilized' landscapes provide the visitor with an open-air museum where the reactions of early man to the challenge of environment are exhibited for all to see.

5. *Archaeology and Natural History*

It may not be apparent to the layman that an ancient monument frequently provides areas of interest to the natural historian. The presence of unusual flora or fauna within a limited region may result largely from the existence of an ancient earthwork whose construction has created conditions favourable to their preservation. The conservation of ancient monuments thus makes possible the continuation of important aspects of the natural history of the county. The example of Whitesheet Hill (Mere) may be cited here. This monument was leased from the National Trust by the Wiltshire Trust for Nature Conservation because of its ecological interest. It was not realized at the outset that the site was a Neolithic causewayed camp constructed early in the third millennium B.C.

6. *Educational*

Television and sound radio have played a spectacular role in the dissemination of knowledge on all aspects of science and the arts to nation-wide audiences. They have stimulated a widespread interest in history and antiquity, and an urge amongst all levels of society to visit ancient monuments. The wide, popular appeal of antiquity from the educational aspect must increase with the projected expansion of home education through

sound and vision. Consequently Wiltshire will have an especial and far-reaching attraction to countless holiday visitors from home and abroad, and, in addition, to adults seeking a more informed interest through university and further education.

7. *Education for Schools*

The obligation to preserve Wiltshire's past is nowhere more pressing than when considered from the standpoint of school education. The unrivalled and comprehensive series of stone and earthwork monuments in the county are a tangible and visible illustration of many aspects of man's cultural progress from prehistoric to recent times. Each year increasing numbers of schoolchildren from Wiltshire and far beyond the county visit these sites as part of their education. It is thus essential to consider the permanent protection, from this point of view alone, of at least *representative examples* of the many varieties of monument in the county to meet the needs of schoolchildren and the education of youth.

8. *Future Academic Investigation*

Beyond the general interest of the ordinary visitor, and of provision for enjoyment and leisure, the needs of student and scholar should also be considered by the preservation of a number of monuments selected primarily for their representative character. Research is essential for the accumulation of fresh knowledge, much of which ultimately becomes available for general education. There is, moreover, a need to preserve selected sites for investigation in the future as improved scientific techniques make it increasingly possible to elicit further and unsuspected information from them. Considerations of public access or amenity should not, therefore, be a necessary condition of selection; nor should their present lack of popular appeal, if such is the case, prevent their being taken on trust as of immense value to national and international scholarship.

B. TYPES OF MONUMENTS RECOMMENDED FOR PRESERVATION

1. *Unique Monuments as Amenities*

Certain of the field monuments in Wiltshire (e.g. Stonehenge, Avebury, Old Sarum, the West Kennet long barrow, Silbury Hill), by being placed under the guardianship of the Ministry of Public Building and Works, have been recognized as crucial to the archaeology of Britain. They are thus secure against destruction because they belong to the state.

It is proposed that this category be extended under the auspices of the Wiltshire County Council to include selected additional sites for *preservation at all costs*. The use of such sites and their surrounding areas should also be considered for their *amenity potential*, with due regard, however, to the preservation of their essential character and natural surroundings.

2. *Representative Monuments or Groups of Monuments*

Under this proposal a selected number of field monuments or groups of monuments would be permanently preserved as representative of their type, in some instances occurring only in this county.

Obvious examples are certain barrow groups, ancient field systems, earthwork enclosures and settlement sites; these have in a number of cases an added importance in view of their value as sites for future investigation. Ease of public access, or amenity value, should not be a reason for their selection.

3. *Areas of Outstanding Archaeological Importance*

To consider only the basic needs of a single section of the community is not in itself enough to preserve for future generations the essential character of the Wiltshire country-

side, nor will the safeguarding of single sites suffice to illustrate for posterity the changing pattern of human development, and man's reaction to the challenge of environment.

Certain areas exist in the county where heavy concentrations of monuments illustrate in comprehensive fashion, as in no other county in England, the development from primitive barbarism to civilization. It is proposed that consideration be given to their designation as areas of outstanding archaeological importance.

An obvious case is the region immediately north of the Wansdyke to include also the Marlborough Downs—an area filled with monuments of all periods, including the greater portion of the Wansdyke. It is additionally a region of great scenic attraction, rich in typical downland flora and fauna, and consequently presents an appeal which embraces archaeologist, natural historian and country-lover alike.

A second obvious example is the Stonehenge region where, in collaboration with the Ministry of Public Building and Works and the National Trust, it might be possible to designate an area which would include some of the barrow cemeteries as an area of outstanding archaeological interest, to the added advantage of countless tourists who visit the area during the summer months.

C. RECOMMENDATIONS

1. The foregoing memorandum has been formulated on the basis of recommendations put forward in the Report of Study Group No. 8 concerning the 'Preservation of Natural, Historic and other Treasures' and published after the Second Conference of 'The Countryside in 1970', held in November, 1965.

This Society earnestly appeals to the Wiltshire County Council to give serious consideration to the proposals embodied in that Report, which we believe is a serious attempt to consider the future of the countryside and its preservation to the ultimate benefit of all sections of the community.

2. The increasing pace at which destruction to field monuments continues each year makes wholly imperative the need first to formulate an effective policy of preservation within the county. Unless this is achieved, all plans for the ultimate future of the countryside will be set at nought, and we may see land finally given over to indiscriminate agricultural or building development.

3. This Society will assist further with the preparation of detailed lists of field monuments in accordance with the proposals under headings B. 1, 2 and 3 (Types of Monument recommended for Preservation). Furthermore, it will readily co-operate in the preparation of suitable guides to selected sites or archaeological areas.

4. Serious consideration should be given to the educational aspect of Wiltshire's past, and not simply on behalf of schoolchildren or the academically disposed. The provision of reasonably priced booklets or easily accessible information will assist notably in the spread of information and an appreciation of ancient monuments for their own sake. To envisage our tangible history only as playgrounds for holiday-makers, or, in the final resort, as convenient parking spaces, is merely to offer pathetic comment upon the corroding materialism of the present day. Such a challenge we dismiss at our peril.

MEMORANDUM III[5]

The natural history of Wiltshire is particularly rich and varied. The large area of chalk downland is dissected by several rivers, each providing water-meadow habitats; to the north-west there is the limestone area typical of the Cotswold belt, while in other areas large woodlands attract their special forms of life. In all, over 90 species of bird breed in the county, some 650 species of the larger butterflies and moths—one-third of the British list—and over 1,000 wild flowers are to be found in the county. Their preservation is urgent but is becoming increasingly difficult as a consequence of:

1. Necessity for agriculture to increase the production of food; 2. Requirements of an expanding population, such as : (a) acquisition of land for building and for communications; (b) increasing desire for leisure in the countryside.

However, by co-operation with landowners and with the County Council much can be done and any regrettable steps should be avoided. The Natural History Section therefore welcomes the opportunity to work with the Wiltshire County Council in the preservation of its unique treasures.

All forms of life, by being endowed with the means of preservation, look to the future. All those who study wild life should have a similar outlook. While the naturalist may look backwards in time to study the evolution of a habitat, he also looks forward in order to provide the conditions under which wild-life can achieve such a balance that is clearly desirable.

A. REASONS FOR CONSERVATION OF WILD-LIFE

1. *Scientific*

The biological and geological studies of many diverse areas give an understanding of the mutual relationships between wild-life and their surroundings. Such areas should be available for study by students of all ages.

2. *Educational*

The knowledge and experiences of one generation must be handed on to the next, whether it be at the school age or at the adult age. All scientific education should be illustrated by live examples in the field rather than by static material in the classroom or laboratory.

3. *Aesthetic*

There are few forms of wild-life which do not contribute directly or indirectly to our well-being. Leisure in the countryside without any wild-life would be a very bleak prospect.

B. AREAS LIKELY TO CONTAIN THE NATURAL HISTORY 'TREASURES'

1. *Chalk Downland*

The fauna and flora of any area are determined by the climate and ecology of the district. Often as the result of hundreds of years of undisturbed conditions some unique animals or plants find just the right habitat for their existence. They have been able to propagate or breed under conditions that ensure their continued survival; but once those conditions are disturbed one or more unique species disappear. Man as a farmer sometimes plays an important part in the ecology: the most valued conditions on chalklands are those downlands cropped by sheep, conditions which have promoted the increase of wild flowers which in turn provide food for such species as are unique to chalklands. Wiltshire has an area of undisturbed chalkland equal to the total of all similar areas in the rest of Great Britain. On Salisbury Plain the Army Department controls 90,000 acres, three-quarters of which are available for some form of agriculture. From the natural history point of view the Army Department acts as a welcome agent of conservation: animal and plant life can continue undisturbed by human activities and in particular by arable farming. The remaining chalkland areas are: (a) the remnant of sheep downland not yet brought into arable use; (b) slopes which are too steep for ploughing or for other uses; (c) areas protected by The National Trust, The County Trust, and The Nature Conservancy.

Consequently among these areas there is a flora and fauna which cannot be found anywhere else in the British Isles. The variety of orchids and other unique plants are listed

in *The Flora of Wiltshire* (1957) by J. D. Grose, and the chalkland butterflies and moths are listed in *The Macrolepidoptera of Wiltshire* (1962) by Baron de Worms.

2. *Woodland*

The wild-life of woodlands is clearly well contrasted with that of the chalkland. Most woodland areas are in private ownership and are often being developed by the Forestry Commission. In order to preserve at least one wood as an undisturbed habitat, The Wiltshire Trust for Nature Conservation has acquired Blackmoor Copse.

3. *Inland Water Areas*

Such areas are always visited by birds, especially the migrants, and are sometimes used as breeding sites provided there is no undue disturbance. There are a few small lakes within private estates but other areas tend to appear for these reasons: (a) reservoir developments such as Chew Lake (in Somerset), Coate Water, etc.; (b) disused gravel pits. In view of the large quantities of gravel required for the M 4 there are liable to be large areas on the border of Wiltshire and Gloucestershire into which water will flood and provide amenities for boating, sailing and fishing as well as for wild-life.

C. EDUCATION

Two aspects should be considered: (1) opportunities for helping schools; (2) the long term policy of educating the public to relate their leisure to various aspects of the countryside.

1. *Help with Field Studies for Schools*

As part of its work the Natural History Section is anxious to educate the younger generation in ideas of conservation as opposed to destruction of life. Apart from welcoming young members, the Section helps to provide and to make known to schools various nature trails. At the moment there is a trail of about $1\frac{1}{2}$ miles along the Kennet and Avon canal set up by the Section in co-operation with the Canal Trust, a trail in Oakfrith Wood set up by the County Education Department, and the Postern Hill Walk set up by the Forestry Commission in Savernake Forest. The Section would welcome encouragement from the Wiltshire County Council in providing notes on walks along old tracks and other routes where, frequently, there are combined interests in both archaeology and the relation between geology and the landscape, together with the resulting wild-life.

2. *Adult Education*

The publication of the Government's White Paper 'Leisure in the Countryside' raises many points of interest. However, in satisfying the desires of car owners to drive short distances and then either to sit in their cars or leave them to go for a walk, there is a danger of destroying exactly what they have come to enjoy. The experience of other counties where car parks have been provided at 'strategic' points is somewhat disturbing and no doubt already known to members of the County Council. However, the early stages of any form of education are fraught with difficulties which have to be faced and eventually overcome. Here again the publication of handbooks—as mentioned for archaeological interests—should be helpful at all stages, and members of the Section would be pleased to help in their production.

D. SURVEY ON $2\frac{1}{2}$ INCH MAPS OF DOWNLAND, WOODLAND AND WATER AREAS

The Nature Conservancy are undertaking a complete record of all downland and woodland in the county on the Ordnance Survey $2\frac{1}{2}$ inch maps. With the co-operation

of members of the Section, those areas will be further classified according to their value. The Nature Conservancy is anxious that the County Council should have copies of those maps at the 1 inch scale with the hope that any proposed developments in the special areas could be brought to the attention of the Natural History Section Committee. When the maps are finished, the Conservancy, together with the Wiltshire Trust for Nature Conservation and the natural history societies of the county, will be in a better position to advise as to which areas of outstanding importance should be conserved by the County Council as 'Countryside Treasures'.

E. RECOMMENDATIONS

1. The chief concern of the Wiltshire County Council should be those chalkland areas which are now becoming unique because they are fast disappearing elsewhere. Wiltshire is the most important county in England as regards chalkland fauna and flora.

2. The Natural History Section will readily co-operate in the preparation of guides to downland and other walks.

3. The Section also strongly supports the fourth recommendation of *Memorandum II* above with regard to education of the public as a whole towards conservation.

[1] To the Field Monuments Committee.

[2] The Archaeology Sub-Committee has added national grid references, absent from the lists published by the Ancient Monuments Inspectorate through H.M.S.O., to its own list of scheduled sites in Wiltshire. Copies of this list are available at Devizes Museum. *Ed.*

[3] To the Wiltshire County Council.

[4] On the other hand, what was a fine, upstanding length of *agger* of the same road on Overton Hill has been almost completely ploughed over, although scheduled, since 1962. *Ed.*

[5] To the Wiltshire County Council from the Natural History Section.

PERIGLACIAL DEPOSITS ON THE CHALK OF WILTSHIRE

by J. G. EVANS

SUMMARY

Periglacial deposits on the Chalk of Wiltshire are described and on faunal and stratigraphical grounds assigned to the Last (Weichsel) Glaciation. It is suggested that almost the entire area of the Chalk was once mantled with these deposits and that their destruction took place only since the later prehistoric period. Thus in the majority of cases they are preserved either in valleys, or in upland areas when buried beneath archaeological sites. The environmental and archaeological implications of this are discussed.

INTRODUCTION

DURING THE LAST (Weichsel) Glaciation[1] the Chalk lands of Wiltshire were unglaciated. They were, however, not so far removed from the ice-sheet as to have been uninfluenced by its presence and lay within the *periglacial zone*. This is defined as the area in which the cooling effect of the ice-sheets was such as to produce a *frost climate*. 'At the present day frost climates characterize the polar region, the tundra of North Europe, and the high mountains, where the average temperature is below freezing-point for a large part of the year and where the warmest month averages less than +10°C.'[2] Under such conditions a variety of deposits is formed, and while these may result from several different mechanisms, the common factor seems to be that physical weathering is dominant over chemical weathering.

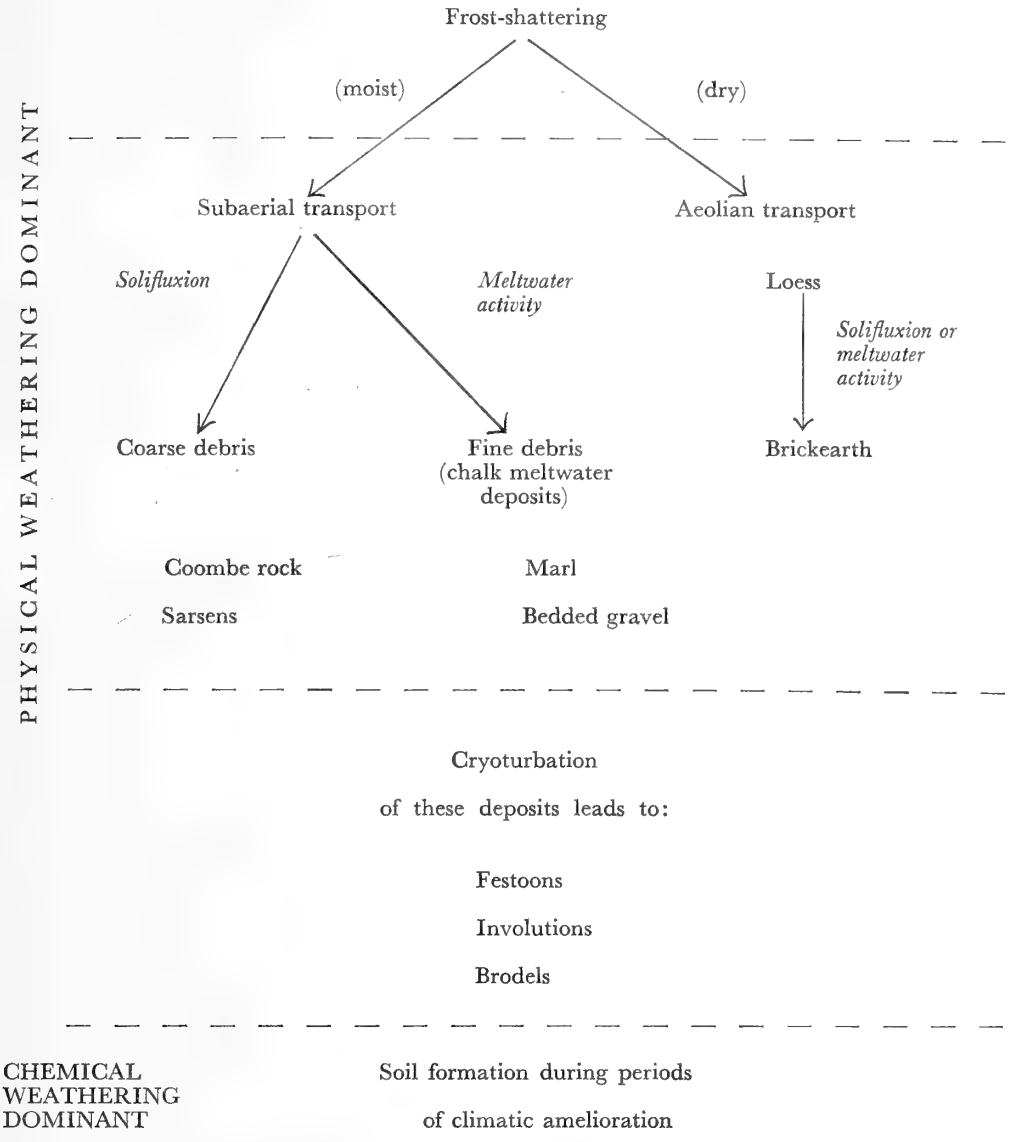
The objects of this paper are to demonstrate the once almost ubiquitous presence on the Chalk of periglacial deposits, and to propose a classification of these on faunal (land Mollusca) and stratigraphical grounds relating to the Middle and Late stages of the Weichselian Glaciation. Of considerable importance is their association with archaeological sites, and because of this, much of the discussion is directed towards archaeologists as a basis for the description of some of the subsoils which may be encountered during excavation.

PERIGLACIAL GEOLOGY

It will be convenient to precede the description of the sites with a brief account of some of the more typical deposits and features associated with periglacial conditions. These are summarized in Table I.

TABLE I

Processes and deposits associated with periglacial weathering



Frost-shattering provides the raw material in the first instance from which periglacial deposits are derived. These may then be laid down by subaerial or aeolian transport. Subsequently, cryoturbation of the deposits may lead to the formation of a variety of structures while further subaerial transport of high level deposits may occur. Finally, during periods of temporary climatic amelioration when physical weathering is superseded by chemical weathering, soil formation may take place.

PERIGLACIAL DEPOSITS

(a) *Solifluxion debris*

Solifluxion is a process involving the mass movement of semi-frozen, frost-shattered debris over a frozen subsoil and takes place during spring and summer melting of the surface layers. It is a process which occurs only on sloping ground. The character of the deposits which result from solifluxion depends necessarily on the parent material. In the area under consideration, this is generally chalk and the deposit is then known as coombe rock, a heterogeneous material composed of coarse, angular lumps in a finer matrix. Clay-with-flints may also be subjected to solifluxion and the present distribution of this material, especially on valley sides and in low-lying places (FIG. 1) may reflect an extension, by solifluxion, of the original *in situ* nucleus.

(b) *Chalk meltwater deposits*

In many of the valleys and coombes are deposits of a rather different type. These consist of muds and gravels to which the name chalk meltwater deposits is applied. Like solifluxion debris, they are the product of frost-shattering and the release of water from melting snow fields and frozen ground during spring and summer thaws. Unlike coombe rock, however, they build up by small increments and are finely bedded.[3] In this respect they resemble fluviatile deposits but the presence in them of a terrestrial fauna of land molluscs reveals their true subaerial origin.

(c) *Loess and brickearth*

Essentially, loess is an aeolian deposit consisting largely of silt (often up to 95 per cent.).[4] Its formation, unlike that of solifluxion and chalk meltwater deposits, takes place under dry conditions. For this reason, loess occurs in upland or exposed places; when present in valleys, it is generally in a redeposited state, caused by solifluxion or meltwater activity, and is then known as *brickearth*.[5] Furthermore, in the area under consideration, loess, even in upland situations, is generally much altered by cryoturbation.

CRYOTURBATION STRUCTURES

Also associated with periglacial conditions are a number of phenomena which may be classed under the heading of cryoturbation or frost-heaving structures. These generally result in the *in situ* alteration of the subsoil which may affect either the geological solid or the drift.

The general effect of frost-heaving is to cause sub-surface material to be thrust upwards and to surround the overlying layers. If the deposit is a heterogeneous one such as coombe rock, segregation of the various grades of material may take place, coarse debris being concentrated in a peripheral position leaving the finer material more centrally disposed (FIG. 4; PL. I, c). To this process the term *brodel* formation is usually applied. It results in a series of pockets packed together so that in plan they appear as irregular polygons. On sloping ground, however, the general result is rather of parallel gullies orientated in a downhill direction.

In homogeneous material, segregation obviously cannot take place but frost-heaving may yet manifest itself through an orientation of the particles in the form of *festoons* (PL. II, b).

The effects of frost-heaving, however, are seen most clearly when two or more layers of different materials are affected, especially if these be of different colours and particle size (PL. I, a; FIG. 2). In extreme cases material in the upper layer becomes almost completely enclosed by the underlying deposit and to this process, the term *involution* is applied (PL. I, b; FIG. 3).

It must be stressed that there is no hard and fast distinction between brodel structures,

festoons, and involutions. Genetically they are all the product of a single process. Differences are based solely on appearances related to initial differences in parent material and to the degree of intensity of the cryoturbation process.

The exact mechanism of cryoturbation is uncertain but is undoubtedly caused by movements associated with alternate freezing and thawing in the zone of formation. Whether or not a permanently frozen subsoil (*permafrost*) is necessary to this process is likewise not clear but the general consensus of opinion at present seems to indicate that cryoturbation structures can develop if the mean annual temperature is below about +3°C.

SOIL FORMATION

During the Last Glaciation there were times when the ice-sheets contracted to such an extent that the climate of the periglacial zone became milder and the characteristic processes of physical weathering ceased. In such periods of climatic amelioration (interstadials) chemical weathering dominated and resulted in the formation of a soil. A permanent cover of vegetation developed and where conditions were suitable this was of coniferous forest.

THE SITES

CHERHILL (Ch. in FIG. 1)

Deposits ascribed to the Last Glaciation were located in the floor of a dry valley immediately to the west of Cherhill village during the excavation of a Mesolithic site (SU 031701).[6] They were overlain by a marsh soil and tufa of Post-glacial age. The valley sides, up to about 350 ft. O.D., are lined with a thin layer of coombe rock; this was found by augering to be at least 2.5 m. in depth towards the valley axis. Derived almost entirely from the Lower Chalk, the deposit consisted of coarse, angular lumps in a matrix of finer debris and showed crude bedding in the upper levels. Its formation is ascribed to a phase of solifluxion during the Middle Weichselian (Table II).

Overlying this was material of the chalk meltwater type, consisting of *c.* 0.3 to 0.6 m. of marl, rather patchy in its distribution, but like the coombe rock, becoming thicker towards the centre of the valley. In a number of places an undulating, intermittent band of pale grey, humic chalk mud was present dividing the marl into upper and lower levels (FIG. 2; PL. I, a). This was interpreted as a fossil soil, formed during a climatic amelioration when meltwater deposition was temporarily halted, and contorted and broken by frost-heaving during the subsequent deterioration.

Both the marl and the soil contained a fauna of land snails[7] and samples for analysis were taken as follows: the marl below the soil (4.0 kg.); the soil (2.0 kg.); the marl above the soil (2.0 kg.). The fauna throughout is diagnostic of the Late Weichselian in Southern England, and is characterized by two species, *Pupilla muscorum* (Linné) and *Vallonia pulchella* (Müller), with others in less abundance (FIG. 5f, g, h). An open grassland environment is to be inferred, while the presence of the marsh genus '*Succinea*'[8] and of large numbers of *Vallonia pulchella*, a relatively hygrophilous species, would suggest this to have been fairly damp.

BECKHAMPTON ROAD (BC. G. 76 in FIG. 1)

A variety of drift deposits was revealed during the excavation of the Beckhampton Road long barrow (SU 067677) situated in a valley floor on deposits marked on the Geological Survey (Sheet 266) as valley gravel.[9] The earliest of these is a coombe rock, exposed to a depth of 1.1 m. in the sides of the barrow ditches, and presumably of even greater depth. Although probably relating to the same period of solifluxion as that at Cherhill, it was coarser, more compacted and derived entirely from the Upper and Middle Chalk.

Overlying this, and rather patchy in its distribution, was a deposit of brickearth. Pale-brown, silty, and consisting mainly of quartzes with numerous chalk pellets, this may largely comprise a loessic element redeposited by solifluxion from the surrounding slopes. Its initial formation is ascribed to a period of intense cold during the Middle Weichselian (Table II) but under rather drier conditions than those obtaining when the coombe rock was laid down.

Also present were deposits of the chalk meltwater type: well-bedded chalk gravels overlain by marl. Their stratigraphical relation to the brickearth was unclear due to their discontinuous spread and the absence of good sections, but in general they appeared to be of later origin. The marl yielded a fauna characteristic of the Late Weichselian and

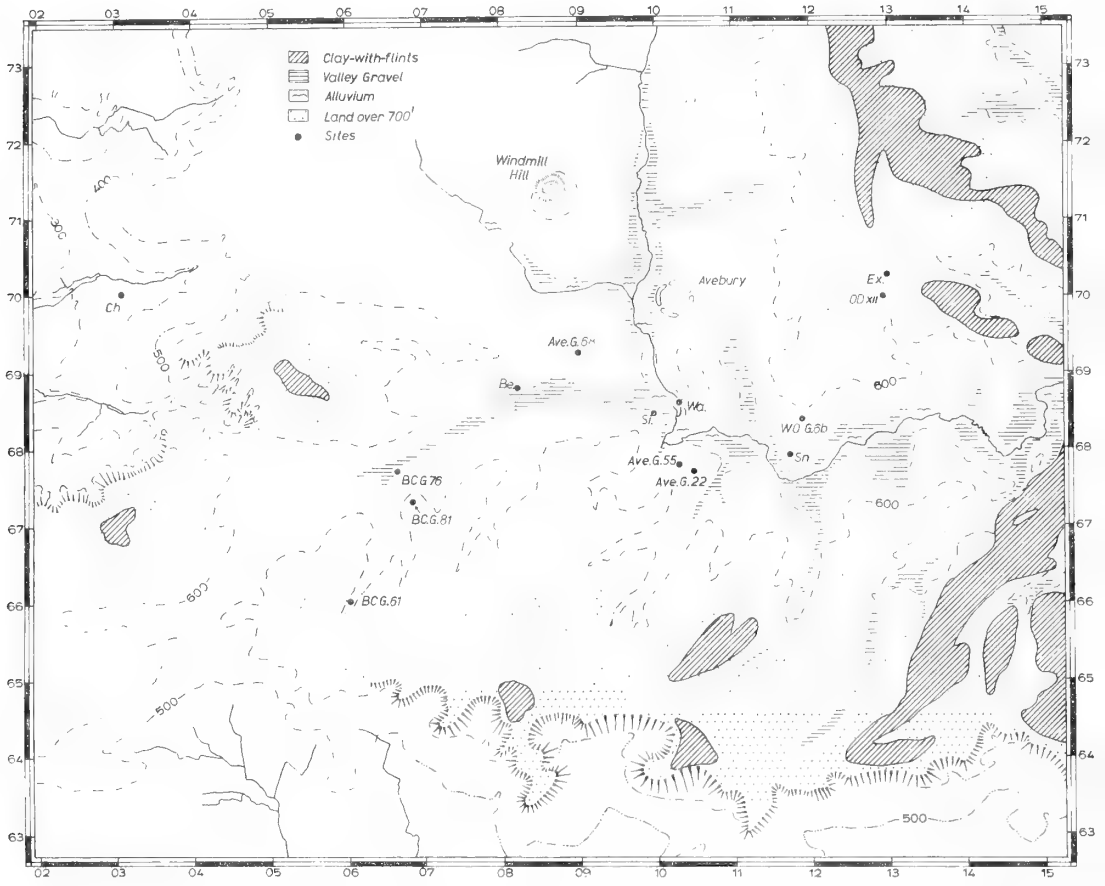


FIG. 1

Drift map of North Wiltshire showing location of the sites in this area.

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closely similar to that at Cherhill (FIG. 5e) with the two species *Pupilla muscorum* and *Vallonia pulchella* comprising the major elements in the fauna. Similar local environmental conditions are to be inferred, though in the absence of '*Succinea*', perhaps not quite as damp.

WADEN HILL (Wa. in FIG. 1)

At various points, exposed in the bank of the Winterbourne on the western side of Waden Hill, are deposits of the chalk meltwater type, consisting of well-bedded gravels and marl overlying an unknown thickness of coombe rock. A section at one point (SU 104685) showed 0.3 m. of gravel overlain by 0.1 m. of marl, beneath an accumulation of 1.7 m. of Post-glacial ploughwash.[10] Both the gravels and marl contain a Late Weichselian mollusc fauna (FIG. 5d; analysis based on *c.* 5.0 kg. of material), and as at Cherhill and Beckhampton Road, *Pupilla muscorum* and *Vallonia pulchella* comprise an important element in this. The fauna reflects an open, marshy environment, especially in the presence not only of '*Succinea*' and *V. pulchella* but of the hygrophiles *Lymnaea truncatula* (Müller) and *Pisidium* spp., and in the abundance of Limacidae (slugs).

SOUTH STREET (Ave. G. 68 in FIG. 1)

During the excavation of the South Street long barrow (SU 090693)[11] a cutting was put through the subsoil beneath the barrow mound where periglacial deposits had been preserved to a height of *c.* 0.6 m. greater than that external to the barrow (FIG. 3). Elsewhere, these had been destroyed by ploughing, aided perhaps by chemical weathering, since the Neolithic period.

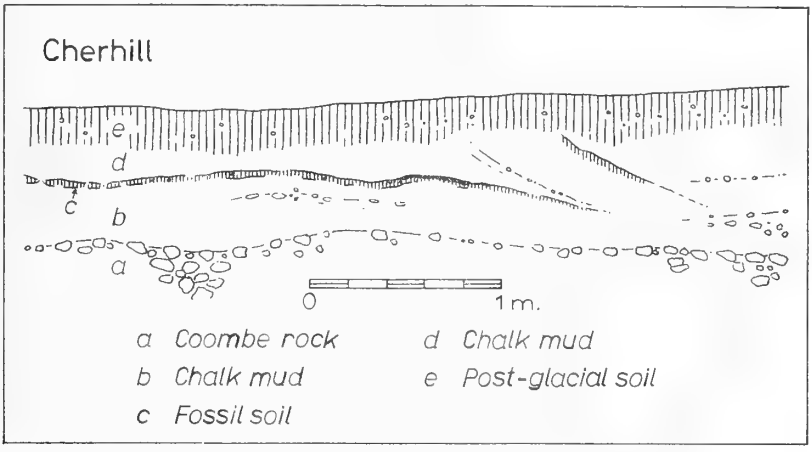

FIG. 2

Cherhill. Section through Weichselian deposits (tufa and modern soil, overlying layer *e*, omitted).

The site is on level ground, at the foot of a low hill, but well above the Winterbourne flood plain system. Overlying 0.2 m. of frost-shattered Lower Chalk are a series of involutions of diverse but generally rounded form containing a buff, silty deposit of fine quartzes and abundant chalk pellets; some larger chalk lumps and angular flints also occur (FIG. 3; PL. I, b). There is considerable variation from material which is well-compacted and hard to material which is soft, loosely packed, and almost devoid of larger fragments. The fill of the individual pockets too may be uniform or heterogeneous and in the latter case the various types of fill are often distributed in zones concentric with the periphery of the pocket.

The division between the fine silty fill of the involutions and the surrounding coarse debris reflects two phases of deposition. In the first, a layer of coombe rock was laid down by solifluxion, probably contemporary with deposits of this material elsewhere in the area.

The buff silty material is probably loessic in origin but would have become mixed with a certain amount of coarser debris in the process of involution.

Two samples of the fill of the involutions (each weighing 2.0 kg.) were analysed for Mollusca, and yielded a fauna diagnostic of the Late Weichselian (FIG. 5b, c). The contrast between this and faunas from the more low-lying sites discussed above, is marked. Here, only one species, *Pupilla muscorum*, is at all well represented; hygrophiles are completely absent and *Vallonia pulchella* is at an absolute minimum, being replaced to some extent by the more rupestral species *Vallonia costata* (Müller). A dry, open and windswept landscape is to be inferred, colonized here and there by vegetation, but for the most part bare.

OTHER OCCURRENCES OF INVOLUTIONS

(a) *Durrington Walls*

A drainage trench cut through the bank of the south-east sector of the henge monument, Durrington Walls (SU 152435), revealed involutions closely similar to those at South Street.[12] A sample from one of these (weight 2.0 kg.) yielded a Late Weichselian mollusc fauna (FIG. 5a), suggesting similar environmental conditions. A few shell fragments of the now extinct species, *Helicella geyeri* (Soós) were present.

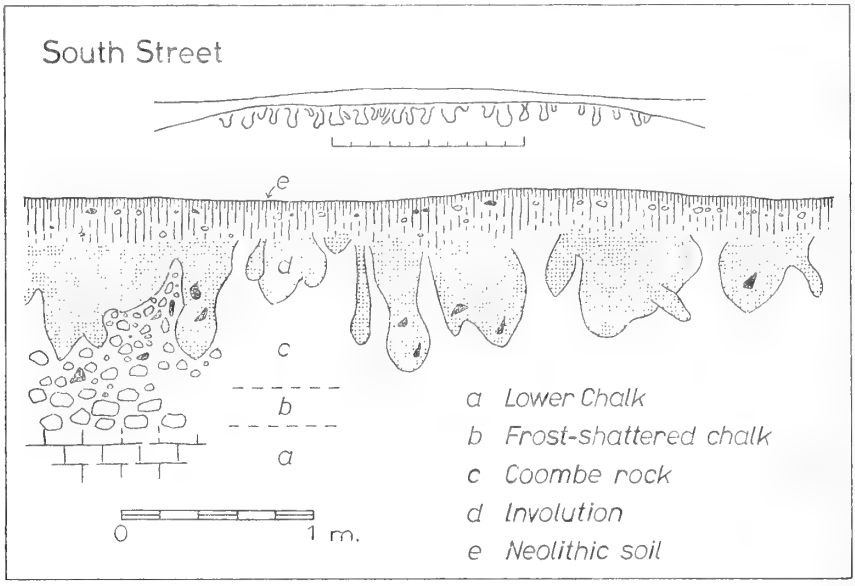

FIG. 3

South Street. *Upper:* skeleton section across the barrow mound to show location of involutions (scale in metres). *Lower:* detail of involutions (barrow mound and modern soil omitted).

(b) *Near Beckhampton* (Be. in FIG. 1)

A drainage trench cut into the side of a dry valley transversely to its axis revealed involutions similar to those at South Street nearby, but preserved directly beneath the modern soil (SU 082688).

(c) *Roughridge Hill* (BC. G. 61 in FIG. 1)

Traces of involutions were seen in the subsoil surface beneath a group of round barrows excavated at the head of a dry valley by Roughridge Hill (SU 060660).[13] In plan these appeared as parallel gullies of buff silty material alternating with coarser chalk debris.

(d) *Overton Down* (OD XII in FIG. 1)

Involutions were seen in the subsoil at a Romano-British settlement site on Overton Down (SU 131701) preserved directly beneath the modern soil.[14] As at Roughridge Hill, these were in the head of a small dry valley and showed a similar pattern in plan (PL. II, a).

(e) *West Overton* (WO. G. 6b in FIG. 1)

In the report of the excavation of a bowl barrow on Overton Hill (SU 119683) is the following comment: 'The subsoil is Upper Chalk, its surface broken by irregular depressions and long parallel troughs filled with a soft buff material, evidently the result of weathering under periglacial conditions.'[15] Also, in the excavation report on three adjacent barrows: 'The geological solid is Upper Chalk, the surface of which is broken by a series of long parallel natural channels filled with decayed chalk and yellowish clay.'[16]

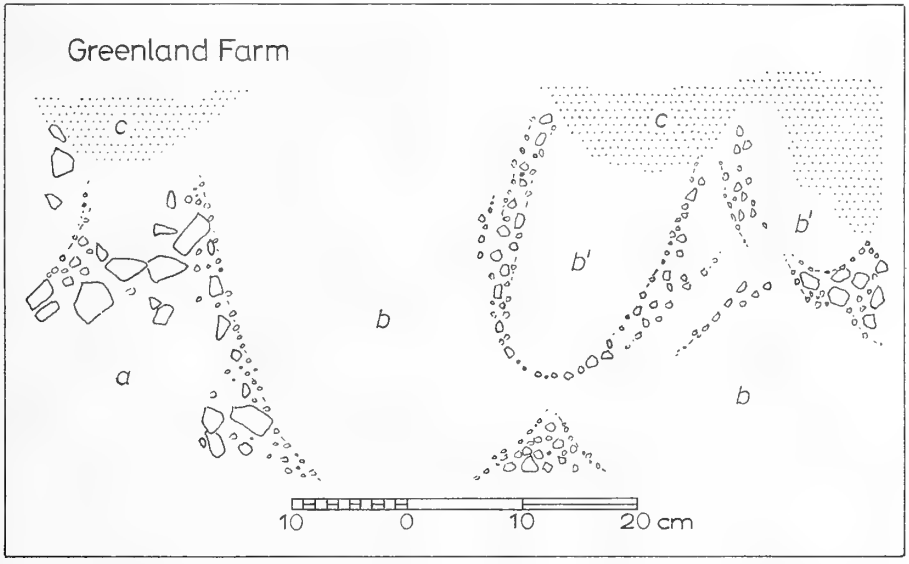

FIG. 4

Greenland Farm. Section through periglacial deposits:
a. coombe rock;
b. fine fill of brodel pockets, first phase;
b' fine fill of brodel pockets, second phase;
c. reddish brown clay.

THE SANCTUARY (Sn. in FIG. 1)

In the report on the excavation of the Sanctuary (SU 118679) the subsoil is described as follows: 'The rubbly condition found to a depth of one to two feet seems to be characteristic of the *Holaster planus* zone in this region, . . . A considerable area east of the Ridgeway (north and south of the road), has been dug over for the sake of the chalk rubble found here and formerly much used for road making, yard paving, etc.'[17] Some form of frost-heaving is here doubtless present but it is uncertain just what is involved.

THE OVERTON DOWN EXPERIMENTAL EARTHWORK (Ex. in FIG. 1)

Festoons in the frost-shattered chalk subsoil to a depth of *c*. 0.3 m. (PL. II, b) were exposed in the side of the ditch of the experimental earthwork on Overton Down (SU

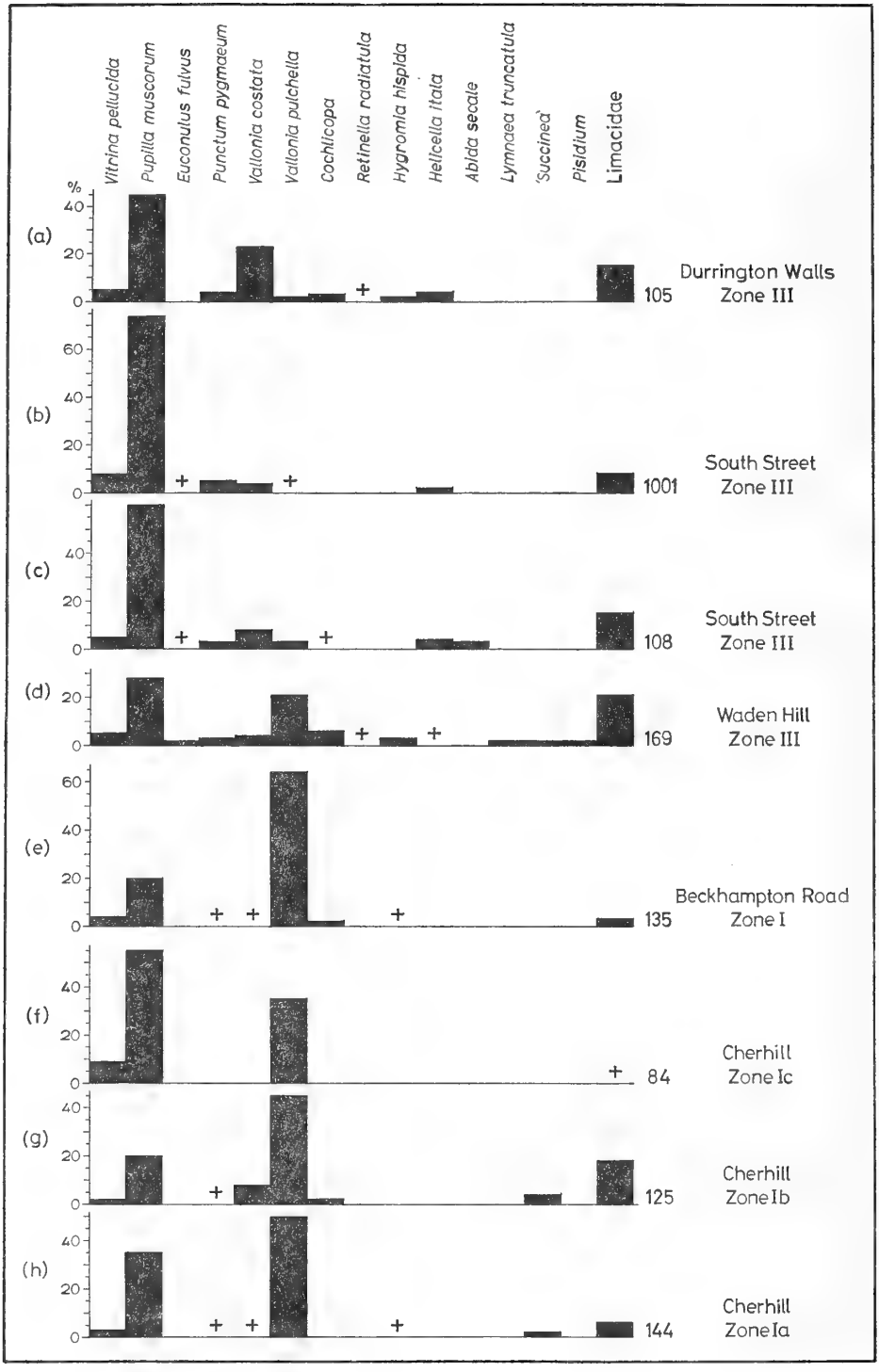

FIG. 5
Molluscan assemblages from Late Weichselian deposits.

129707).[18] Although showing no segregation of coarse and fine debris it is probable that these are genetically similar to involutions, and derive from periglacial weathering.

HEMP KNOLL AND WEST KENNET

Beneath a bowl barrow excavated on Hemp Knoll (BC. G. 81 in FIG. 1; SU 068674),[19] gullies were revealed to a depth of 0.9 m. which, though superficially resembling involutions, differed in certain respects. Thus in plan they were not parallel but converged in a downhill direction, smaller channels uniting to form larger ones. The fill was altogether less calcareous, consisting of a brown silty material, mainly quartzes, and numerous chalk pellets. In addition it was devoid of fauna. Similar gullies were present under a barrow on the slopes below the West Kennet long barrow to a depth of *c.* 1.2 m. (Ave. G. 55 in FIG. 1; SU 102679),[20] and beneath the long barrow itself (Ave. G. 22 in FIG. 1; SU 105677).[21]

It is tempting to equate these features with the brickearth beneath the Beckhampton Road long barrow (BC. G. 76) especially as this site lies in the valley immediately below Hemp Knoll. Perhaps they reflect a stage in the formation of this deposit, associated with the sludging of material down the hillside.

Deposits which may relate to this series have been recorded from beneath Silbury Hill (Si. in FIG. 1; SU 100685) and at Avebury (SU 1069). These comprise a pale clayey material penetrating the underlying coombe rock as hollows and pipes and have been designated Clay-with-flints. However, their low-lying situation and pale colour (emphasized in the case of Avebury)[22] is not in keeping with this idea. The writer's opinion is that this is solifluxion debris, perhaps *derived* from Clay-with-flints, but homologous with the deposits of brickearth. Thus from a site in the Chilterns, a similar deposit has been recorded, overlying coombe rock, which it penetrated as convolutions up to 0.5 m. deep, and itself overlain by deposits of Late Weichselian age.[23]

GREENLAND FARM

Beneath a round barrow at Greenland Farm near Amesbury (SU 099441)[24] periglacial features were revealed of the brodel structure type. In section these appeared as festoons of chalk rubble, the individual lumps of which were vertically orientated, in a matrix of coombe rock (FIG. 4; PL. I, c). At least two phases of brodel formation have taken place as indicated in FIG. 4 (b and b′). In plan they appeared as parallel bands.

They were overlain by a layer of reddish brown clay, perhaps solifluxion debris of similar age and origin to that at Avebury and Silbury Hill. If this is so, then the brodel structures derive from the Middle Weichselian.

CHRONOLOGY

The dating of the deposits is based on faunal and stratigraphical evidence through comparison with other sites for which radio-carbon dates are available. These data are summarized in Table II.[25]

Solifluxion under cold and moist climatic conditions resulted in the formation of thick deposits of coombe rock. The material is unbedded, or sometimes crudely bedded towards the surface reflecting a decrease in the intensity of solifluxion. It was probably during this period that many of the dip-slope valleys were widened and a number of the larger scarp-slope coombes formed in their entirety as seems to have been the case at Cherhill. Brickearth deposits relate to a later period when conditions became rather drier with loess formation, but yet moist enough to cause

TABLE II

Some of the main events associated with periglacial conditions during the Middle and Late Weichselian

	Zone		B.C.
POST GLACIAL	IV	Climate becoming temperate; slow chemical weathering; soil formation	8,300
LATE WEICHSELIAN	III	Rapid physical weathering; meltwater deposits of marl and gravel; formation of small scarp coombes; involutions and loess	8,800
	(II)	Soil formation (Allerød)	10,000
	Ic	Meltwater deposits of marl and gravel	10,300
	Ib	Soil formation (Bølling)	
	Ia	Meltwater deposits of marl and gravel	*c.* 12,000
MIDDLE WEICHSELIAN		Loessic brickearth and clay deposits; dry, cold climate with some solifluxion	
		Coombe rock; intense physical weathering; solifluxion and formation of larger coombes; climate cold and wet	*c.* 48,000

solifluxion, so that loess, when it occurs, is in a secondary state. The brodel pockets at Greenland Farm and the deposits of solifluxed clay may well relate to this stage also, but are too insecurely stratified for this to be certain.

Two climatic stages are thus indicated and a correlation may be made with sites in south-east England where a similar sequence of an earlier cold and wet and a later cold and dry period have been recognized.[26] Both stages relate to the Middle Weichselian.

Although perhaps not totally relevant to the present discussion, it may be worth pointing out for the sake of completeness, that the flows of sarsen boulders which line many of the dry valleys in the area probably derive from a period of solifluxion during the Middle Weichselian also. Some of these appear to have travelled distances of up to 13,000 ft. down slopes from their source area on the interfluves.[27]

With the onset of the Late Weichselian, deposits of the chalk meltwater variety become characteristic and this must reflect a climatic change of some magnitude. An amelioration, with higher summer temperatures and less intense frost-shattering is almost certainly involved; perhaps, too, there was an increase in precipitation. Typically, the Late Weichselian shows a tripartite division into an early period of cold climate during which processes of physical weathering dominated (Zone I), an amelioration when the climate became sufficiently mild to enable soil formation to take place (Zone II) and a final period of climatic deterioration when once again physical weathering dominated (Zone III). Zone II is the famous Allerød Inter-

stadial which lasted for over a thousand years. Earlier, during Zone I, an interstadial of shorter duration intervened (Bølling, Zone Ib), also reflected by soil formation.[28]

The deposits discussed in this paper are characterized by a fauna of land Mollusca, diagnostic of the Late Weichselian in Southern England,[29] and through a consideration of the detailed composition of the assemblages it is possible to relate the deposits to specific zones within this period. Thus at Cherhill and Beckhampton Road (BC. G. 76) the deposits of chalk marl would appear to belong to Zone I (FIG. 5e, f, g, h). This is suggested by the absence of *Helicella itala* (Linné) and *Abida secale* (Draparnaud), two species of southerly distribution in Europe and not generally present during the Late Weichselian until Zone II. It must be noted, however, that both these species are xerophiles and their absence from assemblages of relatively hygrophilous facies may well relate to local ecological factors rather than to age. But at Cherhill (FIG. 5f, g, h) the deposits are ascribed with some confidence to Zone I and the fossil soil to Zone Ib, the Bølling Interstadial. Not only the absence of *Helicella itala* and *Abida secale*, but the overall restricted aspect of the fauna are typical of Zone I. Thus one would expect a higher absolute abundance of molluscs, greater diversity, and a more uniform distribution of numbers among the various species present if a Zone II assemblage were involved. In addition, the soil profile is insufficiently mature to warrant a Zone II date for its formation.

At Waden Hill (FIG. 5d) the deposits are equated with a period of chalk meltwater activity and the presence of *Helicella itala* in the molluscan assemblage would seem to indicate a Zone III age. Likewise the deposition of loess on open downland sites at Durrington Walls (FIG. 5a), and South Street (FIG. 5b, c) is equated with Zone III, both *Abida secale* and *Helicella itala* occurring at the latter. The process of involution is also likely to have taken place during Zone III, probably commensurate with loess deposition. The involutions recognized at a number of sites (near Beckhampton (Be), Roughridge Hill, Overton Down (OD XII) and West Overton) are equated with Zone III also, for although no faunal data are available, they are so closely similar to those at South Street and Durrington Walls as to be unlikely to derive from an earlier period. It is probable too that the festoons in the side of the ditch of the Experimental Earthwork are of the same age.

Zone III is the last period for which there is evidence of severe physical weathering on the Chalk landscape and it is natural to suppose that this would leave most traces and result in the destruction of earlier phenomena. Many of the smaller coombes along the scarp have been shown to derive almost entirely from Zone III,[30] though it is apparent that some of the dip-slope and large scarp-slope valleys derive from an earlier date as seems to be suggested by the absence of Zone III deposits at Beckhampton Road (BC. G. 76) and Cherhill. Likewise, the preservation of solifluxion features of Middle Weichselian age in such exposed sites as Hemp Knoll and West Kennet implies that erosion was reduced or non-existent on these slopes during Zone III. This probably relates to their north-facing aspect where, in the Late Weichselian, snow would accumulate to greater thicknesses and thaw out less frequently than on the opposing slopes, thus causing less erosion. Similar reasoning has been invoked, for instance, to account for the asymmetry of many of the dry

valleys in the Chiltern Hills where the south-facing slopes are steeper and more eroded than those facing north.[31]

After Zone III, periglacial weathering ceased finally, and everywhere soil formation took place.

ENVIRONMENTAL AND ARCHAEOLOGICAL IMPLICATIONS

By the end of the Late Weichselian, periglacial deposits must have mantled a large part if not the total area of the Chalk. Perhaps only the steeper scarp slopes were free of drift (area hachured in FIG. 1), and this has a number of important environmental and archaeological implications.

Thus with regard to the Post-glacial soil which developed after Zone III, it is apparent that the parent material from which this derived was not Chalk rock. Prior to the Neolithic period, the soils must have had a higher acid insoluble (non-calcareous) content, a richer variety of minerals, and may consequently have tended more towards the *brown-earth* type, rather than the *rendsina* so characteristic of the area today. The subsoil would have been more heterogeneous, permitting easier penetration of the roots of large trees, and may too have been less permeable than chalk rock, so that while it is perhaps debatable whether a cover of mixed oak forest of climax type could be supported on the Chalk soils as we see them today, there is no reason why this should not have been so in the past.

In places where Zone III deposition was absent such as at Cherhill and Beckhampton Road (BC. G. 76), the soil which formed during the Allerød Interstadial would have provided the basis for Post-glacial soil formation and in such situations it it reasonable to suppose that maturity would be reached at a much earlier stage than elsewhere. The Allerød soil would become completely incorporated in the Post-glacial soil and no trace of it would remain.

The destruction of these deposits in upland areas must have taken place through a variety of agencies. Chemical solution of the calcareous component and of some of the more readily weatherable minerals would have been initiated at the very beginning of the Post-glacial period and have gone on as part of the process of soil formation itself. Information about the rate of this process, however, is sparse and restricted to the later part of the Post-glacial.[32] With the onset of Neolithic clearance and agriculture accelerated erosion of the deposits on slopes would have been brought about by such processes as the removal of the arboreal vegetation and a resulting instability of the soil. Ploughing must have caused even greater destruction and, while initiated in the Neolithic period,[33] was most intensive from the Early Iron Age onwards, when massive deposits of ploughwash accumulated in the valleys and coombes.[34]

In spite of this, phenomena associated with periglacial weathering may yet be found preserved directly beneath the modern soil, as for instance near Beckhampton (Be) and on Overton Down (OD XII); and the preservation of festoons, observed in the side of the ditch of the Experimental Earthwork on Overton Down, at a height of over 700 ft. above O.D., is remarkable.

On the archaeological side a number of disconnected points may be mentioned.

First, the occurrence of Late Weichselian deposits directly beneath soils of Post-glacial age has certain implications with regard to the analysis of soils for plant and animal remains (small mammal bones, snail shells, pollen, etc.). Soil formation takes place through chemical and physical weathering of the subsoil at an interface located at the base of the soil and the surface of the subsoil, so that in general the more mature horizons of a soil profile are in its upper levels. It follows, therefore, that plant and animal remains in these will generally be of Post-glacial age, but that in the *zone of transition* with the subsoil, due to incomplete weathering, a component of the Late Weichselian fauna or flora may be preserved, and if not recognized as such, its open-country aspect may be construed, for instance, in terms of prehistoric clearance. To avoid confusion, therefore, the subsoil should be analysed as a control if it is suspected to be of periglacial origin.

Second, as a source of raw material for building, periglacial deposits appear to be ideal and the evidence suggests them to have been widely used. Thus Cunnington[35] notes their use for 'roads, yard paving, etc.' and they also seem to be a major component of cob walls. Both the Beckhampton Road and South Street long barrows were built largely of periglacial material and at Cherhill, a recent excavation[36] revealed a series of Neolithic hollows dug into the upper layers of the coombe rock and marl, the only reasonable explanation of which seems to be their use as borrow pits for daub.

Thus while it is standard archaeological practice to have test pits into the subsoil external to a site, it is to be recommended that these be put down also on the site itself, especially in upland areas where much of the periglacial deposits will have been destroyed elsewhere. This will obviate any difficulties which may arise due to discrepancies between the subsoil beyond the bounds of a site and material in archaeological structures on the site itself.

Third, the problem of distinguishing periglacial features from those of archaeological origin, notably plough-marks, gullies, bedding-trenches, stake-holes, post-holes, and pits is one which turns up time and again. Cryoturbation structures comprise the main source of confusion and these may be expected to be widespread beneath archaeological sites on the Chalk. There is no short-cut to their recognition however and a greater variety is likely to turn up than indicated here. They should be treated in much the same way as archaeological features: the exposure of extensive areas in plan and the cutting of transverse or radial sections. Regularities will then become apparent, and their geological nature revealed.[37]

ACKNOWLEDGEMENTS

I would like to thank Professor G. W. Dimbleby, Dr Isobel F. Smith, and Dr M. P. Kerney for reading and commenting on the typescript and for valuable discussion during the writing of this paper. I am also grateful to all those archaeologists who gave me access to their excavations.

NOTE

The Society is indebted to the Council for British Archaeology for a generous grant towards the cost of publishing this paper.

[1] For terminology of the British Quaternary see *Proc. Geol. Ass.*, **74** (1963), 147–86.

[2] Discussion of periglacial phenomena, frost soils, loess, solifluxion deposits, etc., see F. E. Zeuner, *The Pleistocene Period* (1959), 24–34 and 81–132.

[3] *Phil. Trans. Roy. Soc.*, B, **246** (1963), 203–54; p. 205 for discussion of chalk meltwater deposits; pp. 231–44 for analysis of land Mollusca; and general discussion of Late Weichselian stratigraphy on the Chalk.

[4] Note 2, p. 91; *Proc. Prehist. Soc.*, **21** (1955), 51–64.

[5] However, not all deposits classified under the term brickearth are of aeolian origin; thus Tamplin has shown many of the Thames Valley brickearths to be no more than flood loams. *The Middle Thames Brickearths: Their Nature, Stratigraphy, and Archaeology*, unpublished M.Sc. thesis by M. J. Tamplin (1966), Institute of Archaeology, London University.

[6] Excavation on behalf of W.A.N.H.S., with a grant from the Ministry of Public Building and Works, by I. F. Smith and J. G. Evans in September and October 1967. See also p. 107, this volume.

[7] For information on the analysis of Quaternary deposits for land Mollusca see note 3; and *Proc. Linnaean Soc. Lond.*, **172** (1961), 71–80.

[8] The species of '*Succinea*' are difficult to identify unless good material is available. In this case, two species, *Catinella arenaria* (Bouchard-Chantereaux) and *Succinea oblonga* (Draparnaud) may be present.

[9] Excavation on behalf of the Ministry of Public Building and Works by I. F. Smith; see *Antiquity*, **42** (1968), 138. Enumeration of this and other barrows is that given in *V.C.H., Wilts.*, I, Pt. i (1957).

[10] See *W.A.M.*, **61** (1966), 97–8, for archaeological aspects of this site.

[11] Excavation on behalf of W.A.N.H.S., with a grant from the Ministry of Public Building and Works, by J. G. Evans in 1966 and 1967; see *Antiquity*, **42** (1968), 139.

[12] I am grateful to Mr. L. Biek of the Ministry of Public Building and Works for bringing this section to my notice.

[13] Excavation on behalf of the Ministry of Public Building and Works by Mrs. E. Proudfoot in August 1964; see *W.A.M.*, **60** (1965), 132–3.

[14] Excavation by Mr. P. J. Fowler in August 1967.

[15] *Proc. Prehist. Soc.*, **32** (1966), 122.

[16] *W.A.M.*, **59** (1964), 69.

[17] *Ibid.*, **45** (1931), 319.

[18] Professor G. W. Dimbleby kindly brought this section to my notice and provided the photograph.

[19] Excavation by Mrs. M. E. Robertson-Mackay on behalf of the Ministry of Public Building and Works in August 1965; see *W.A.M.*, **61** (1966), 102.

[20] Excavation by I. F. Smith on behalf of the Ministry of Public Building and Works in October 1964; see *W.A.M.*, **60** (1965), 24–46.

[21] Soil pit dug by J. G. E. with kind permission of the Ministry of Public Building and Works.

[22] *Windmill Hill and Avebury: Excavations by Alexander Keiller*, 1925–1939 (1965), 221.

[23] *Proc. Geol. Ass.*, **77** (1966), 350 and fig, 2b.

[24] Excavation by Mrs. P. Christie on behalf of the Ministry of Public Building and Works in August 1964; see *W.A.M.*, **60** (1965), 134. I am grateful to Mrs. Christie for providing the photograph from which FIG. 4 and PL. I, c were made.

[25] Radiocarbon dates and Weichselian chronology from *Proc. Geol. Ass.*, **76** (1965), 269–74.

[26] See note 25 and *Phil. Trans. Roy. Soc.*, B, **246** (1963), 211–17 and figs. 7 and 9.

[27] I am grateful to Mr. R. B. G. Williams for information on this point.

[28] See note 3.

[29] See note 3.

[30] *Phil. Trans. Roy. Soc.*, B, **248** (1964), 135–204.

[31] *Geogr. J.*, **123** (1957), 71–80.

[32] *Antiquity*, **31** (1957), 228–33.

[33] *Antiquity*, **41** (1967), 289–90.

[34] See note 30.

[35] See note 17.

[36] See note 6.

[37] Superimposed on such structures may be natural deposits and features of Post-glacial origin; hollows left by the decomposition of tree roots, old animal burrows, and the so-called 'carrots'. The latter are caused by chemical solution; they are generally clay-filled and can be distinguished from periglacial structures by their regularly tapering form and circular plan. But to confuse the picture, these may develop along the lines of periglacial structures, as solution is most pronounced where planes of weakness are present in the subsoil such as at the interface of the coarse and fine debris of involutions.

IRON AGE AND ROMANO-BRITISH SETTLEMENT SITES IN WILTSHIRE

SOME GEOGRAPHICAL CONSIDERATIONS

by D. J. BONNEY

IN THIS BRIEF PAPER the known Iron Age and Romano-British settlement sites in Wiltshire are examined from a geographical rather than a purely archaeological point of view, that is in terms of their siting, aspect, height above sea-level and relationship to surface (drift) geology and resultant soils. The purpose of such an examination is to see, as precisely as possible, what differences and similarities may be detected in the types of sites favoured for settlement during the pre-Roman Iron Age on the one hand and the period of the Roman occupation on the other. That differences do exist has not passed unnoticed but up to the present no attempt has been made to analyse all the known settlement sites on the above basis and to render the resultant information graphically. Such an analysis raises certain problems of terminology, chronology and distribution inherent in the imperfect nature, to put it charitably, of the archaeological record and which it is necessary to consider briefly first.

By the term 'known settlement sites' is meant here all those sites which have produced evidence of habitation in the form of earthworks and/or occupation debris together with clear evidence of date in the form of finds. Only hill-forts have been included without some such evidence for date since as a class of earthworks they may, above all, be securely ascribed to a period, namely the Iron Age, although a few of them continued to be occupied, or were re-occupied, during the Roman period. It has been felt safer to exclude other earthwork sites likely to be of Iron Age or Roman date, but which have produced no datable material, since so many of these cannot, on morphological grounds alone, be attributed with much certainty to either one period or the other. Multiple Romano-British burials or cemeteries, though they are few in number, have been included as adequate proof of settlement, since it is known on wider evidence that such burials commonly occur within or on the fringes of settlements. Single burials and unassociated finds of coins, either singly or in hoards, of metalwork, of small quantities of pottery and of other objects, have naturally not been included as evidence of settlement.

A problem of chronology arises in that both the Iron Age and the period of the Roman occupation were of considerable duration, totalling together some thousand years during which time, as part of a continuing process, changes took

place both in the nature and in the distribution of settlements within the landscape. It may, therefore, be objected that by categorizing settlements as of merely either the Iron Age or of the Roman period no allowance is made for changes which took place within each of those periods. Regretfully this must be admitted, but in so many instances, because of the inadequate nature of the record, precise evidence of date, let alone the *duration of occupation*, is unobtainable. This problem is particularly acute for the Iron Age where it is further aggravated by the present confused state of the study of that period. For the Roman period, however, with its more secure dating framework, it has been possible, in addition to a general analysis of sites, to isolate and analyse settlement sites with unequivocal evidence for occupation during the 4th century.

A further difficulty which besets any distributional analysis of archaeological material is the extent to which the available evidence is representative of what once existed or, more realistically, of what survives to be found. It is obvious that we know of only a proportion, and often a small proportion at that, of the total number of sites of any given type or period that once existed. What is equally obvious, but more frequently forgotten, is that the survival ratio of such sites can and does vary from area to area and from one type of site to another. Different areas, due to underlying differences of geology and soils, vary widely in the extent to which they reveal or conceal evidence of early settlement, especially if sites no longer survive in relief but have to be sought chiefly by aerial photography. Differences of land-use from one area to another, and subsequent to the period under study, have had a fundamental effect upon the survival and recognition of early sites: a smaller proportion of sites almost certainly survives in areas of intensive and continuous human activity—agricultural, industrial and urban—than in areas only lightly affected by such activity. The nature of settlements, themselves, has often contributed to the way in which they have withstood or succumbed to the agencies of destruction. The massive earthworks of hill-forts, for example, have in most cases ensured their survival, even if in a somewhat mutilated condition, whereas the slight traces of unenclosed settlements unassociated with deep ditches and pits have been obliterated with comparative ease by the plough. A further factor influencing knowledge of early settlement in an area is the extent to which it has been subjected to conscious archaeological activity. It is generally true to say that, at least until recent times, those areas in which sites have most obviously survived have attracted most attention from archaeologists, often, it may be suspected, at the expense of areas with few obvious sites.

It is not possible to assess with any accuracy the extent to which these factors have operated in any given area and it is certainly not possible to compensate for them in any distributional analysis such as that which follows. It is, however, probably true to say that in Wiltshire the incidence of survival of early settlement sites, and the study accorded them, has been most marked in the Chalk areas, which are geologically very favourable to the survival and recognition of sites, and particularly in the Chalk downlands which have escaped, until recent years at least, the destructive effects of intensive agricultural and other human activity.

A search of the main sources for Wiltshire[1] has produced for analysis some

271 Iron Age and Romano-British settlements as defined above. Of these 114 were occupied during the Iron Age and they may be divided into two categories—hill-forts (46) and other settlements (68). While there is room for argument over a few of the hill-forts the majority are not in doubt and with very few exceptions it has been possible to accept those listed in *V.C.H. Wilts.*, I, i, and the gazetteer accompanying the Ordnance Survey *Map of Southern Britain in the Iron Age*. Information on other settlements, especially their type or form, is in most instances so unsatisfactory that it has proved quite impossible to subdivide them. The Romano-British sites, which number 193, have been divided into three categories: villas (25), other substantial buildings as defined by the Ordnance Survey (14),[2] and other Romano-British settlements (154). As in the case of the Iron Age settlements, and for the same reason, no subdivision of the latter is possible. But 36 of these settlements occupied sites also inhabited in the Iron Age—in some instances with clear evidence for continuity of occupation—and these have been distinguished as Iron Age/Romano-British (I.A./R-B) in the text and on the accompanying bar-graphs. It proved possible to isolate a group of some 55 Romano-British sites which have yielded clear evidence of occupation in the 4th century—usually in the form of coinage, imitation samian and rosette-stamped pottery. (The presence of New Forest pottery within a settlement has not, on its own, been considered sufficiently reliable evidence of 4th century occupation.) These have been subjected to further separate analysis under the heading 'Late R-B' but their fewer numbers probably renders such analysis less reliable. It is as well to mention here the overwhelmingly rural aspect of settlement in Wiltshire during the Roman period as well as in the Iron Age. Roman influence on settlement may be detected most readily in the villas and the attempts to imitate them rather than in the towns, which are very few and undistinguished.

Distribution of Sites in Relation to Drift Geology (FIGS. 1 and 2)

Wiltshire is dominated by the Chalk which occupies well over half of the county in the south and east and gives rise to a generally upland area of light soils. On the highest parts and towards the Hampshire border, where Clay-with-Flints and other deposits overlie the Chalk, heavy soils occur. Beyond the Chalk to the north and west a variety of geological formations outcrop, chiefly in a series of bands of varying widths running from south-west to north-east. Among these clays predominate, giving rise to low-lying, often poorly drained areas of heavy soils. Within and along the margins of the clays are outcrops of rocks such as Corallian limestone, Upper and Lower Greensand and Portland and Purbeck Beds. These generally appear as slightly more elevated areas of comparatively light soils. Beyond the clays, in the north-west of the county, lies the Oolitic limestone of the Cotswold dip-slope—a further area of lightish soils. These numerous and varied outcrops have had a profound effect on the distribution of early settlement.

FIGS. 1 and 2 illustrate the distribution of sites in relation to drift or surface geology, distinguishing between those which lie on the Chalk and those which lie off it. One hundred (87.7 per cent.) of the 114 sites occupied during the Iron Age, comprising 35 hill-forts and 65 other settlements, lie within the Chalk. Fifteen of these lie on superficial deposits overlying the Chalk, such as Clay-with-Flints and Valley Gravel. Only 14 sites (12.3 per cent.)—11 hill-forts and three other settlements—lie off the Chalk and virtually all on rocks which give rise to fairly light, easily cultivable soils such as Upper Greensand, Corallian limestone and Oolitic limestone.

FIG. 1
Iron Age and Romano-British sites in Wiltshire.

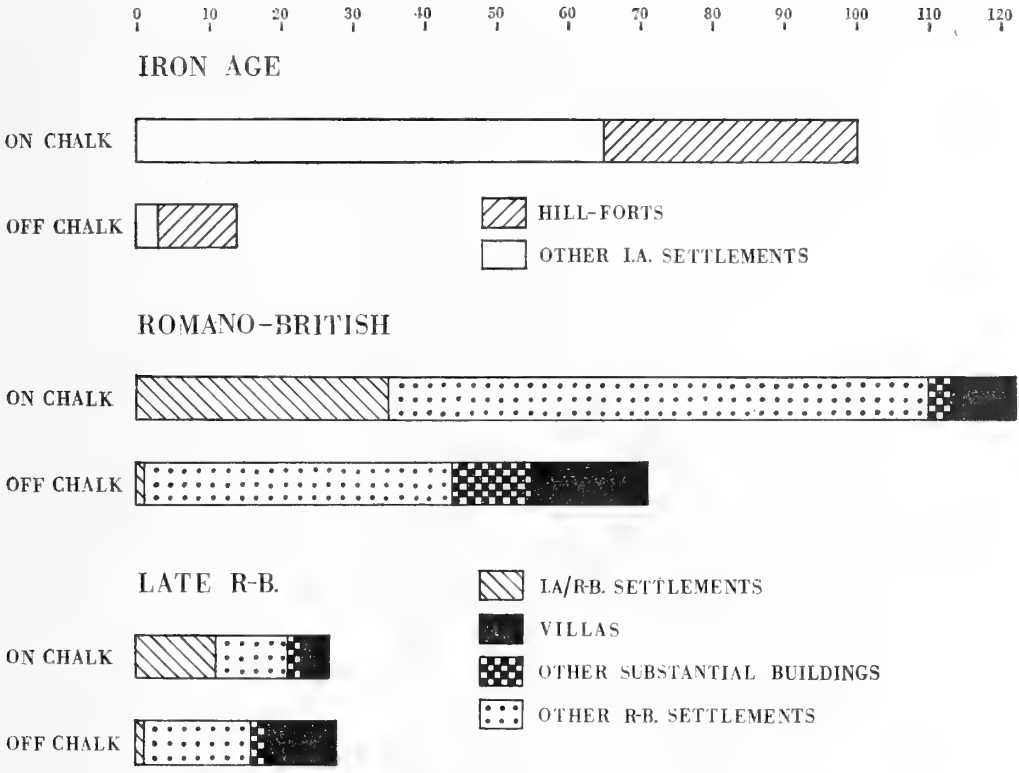

FIG. 2
Distribution of settlement sites in relation to surface geology.

		HILL-FORTS	OTHER SETTLEMENTS
Light Soils	Chalk	33	52
	Valley Gravel on Chalk		4
	Plateau Gravel on Chalk		1
Heavy Soils	Clay-with-Flints on Chalk	2	8
	Non-Chalk		
Light and Medium Soils	Oolitic Limestone	2	
	Forest Marble		1
	Corallian Limestone	3	1
	Upper Greensand	4	1
Heavy Soils	Oxford Clay	1	
	London Clay	1	

Of the 193 Romano-British sites, 122 (63.2 per cent.) lie within the Chalk and comprise 9 villas, 3 other substantial buildings and 110 other settlements, among them 35 I.A./R-B sites. Twenty-five of these lie on superficial deposits overlying the Chalk,

among them 16 on Valley Gravel. The remaining 71 sites (36.8 per cent.) lie off the Chalk —16 villas, 11 other substantial buildings and 44 other settlements, of which only one has produced evidence of I.A. occupation. Again the majority are on geological formations giving rise to lightish soils, but in contrast to the Iron Age a small but significant proportion of sites lie on the heavier clay soils.

		VILLAS	O.S.BS.	OTHER R-B SETTLEMENTS	
Light Soils	Chalk	4	2	91	(29 I.A./R-B)
	Valley Gravel on Chalk	5		11	(3 I.A./R-B)
	Plateau Gravel on Chalk			2	(1 I.A./R-B)
Heavy Soils	Clay-with-Flints on Chalk		1	6	(2 I.A./R-B)
	Non-Chalk				
Light and Medium Soils	Oolitic Limestone	2	2	3	
	Forest Marble	2	1	4	
	Corallian Limestone	4	4	5	(1 I.A./R-B)
	Lower Greensand	3		3	
	Upper Greensand	1	1	17	
	Purbeck/Portland Beds			2	
	Valley Gravel	1		1	
	Cornbrash			2	
Heavy Soils	Upper Lias	1	1		
	Oxford Clay	1	1	2	
	Kimmeridge Clay			1	
	Gault Clay			4	
	Reading Beds	1	1		

Of the 55 sites which were occupied during the 4th century almost exactly half (27) lie within the Chalk—4 villas, 2 other substantial buildings and 21 other settlements, of which 11 were on sites previously occupied in the Iron Age. The 28 sites which lie off the Chalk comprise 10 villas, 2 other substantial buildings and 16 other settlements, only one of which produced evidence of Iron Age occupation.

Two main points emerge from this analysis of sites in relation to surface geology. The bulk of the known Iron Age settlement sites is restricted to the Chalk while over one-third of all the Romano-British sites lie off it, a distinction perhaps reinforced by the evidence of the Late R-B sites. Villas and other substantial buildings, which clearly indicate a measure of Roman influence on settlement, are far more numerous off the Chalk than on it. On the Chalk the majority of Romano-British settlements are in the native tradition and many of them are on sites occupied during, and sometimes continuously since, the Iron Age.

Distribution of Sites in Relation to Height above Sea-Level (FIGS. 3 and 4)

Nearly all of Wiltshire lies over 200 ft. above sea-level; only the broad valley of the Bristol Avon, the narrow valleys of the Salisbury Avon and its tributaries and a small area adjacent to the New Forest are below this height. From 200 ft. in the south-east the Chalk rises north and westwards, much of it lying between 400 ft. and 650 ft. above sea-level, with summit areas above this rising to over 900 ft. in a few places. Beyond the Chalk comparatively little land lies above 400 ft. except for parts of the Oolitic (Cotswold) and Corallian limestone outcrops and of the Upper Greensand where it approaches the Somerset and Dorset borders in the south-west.

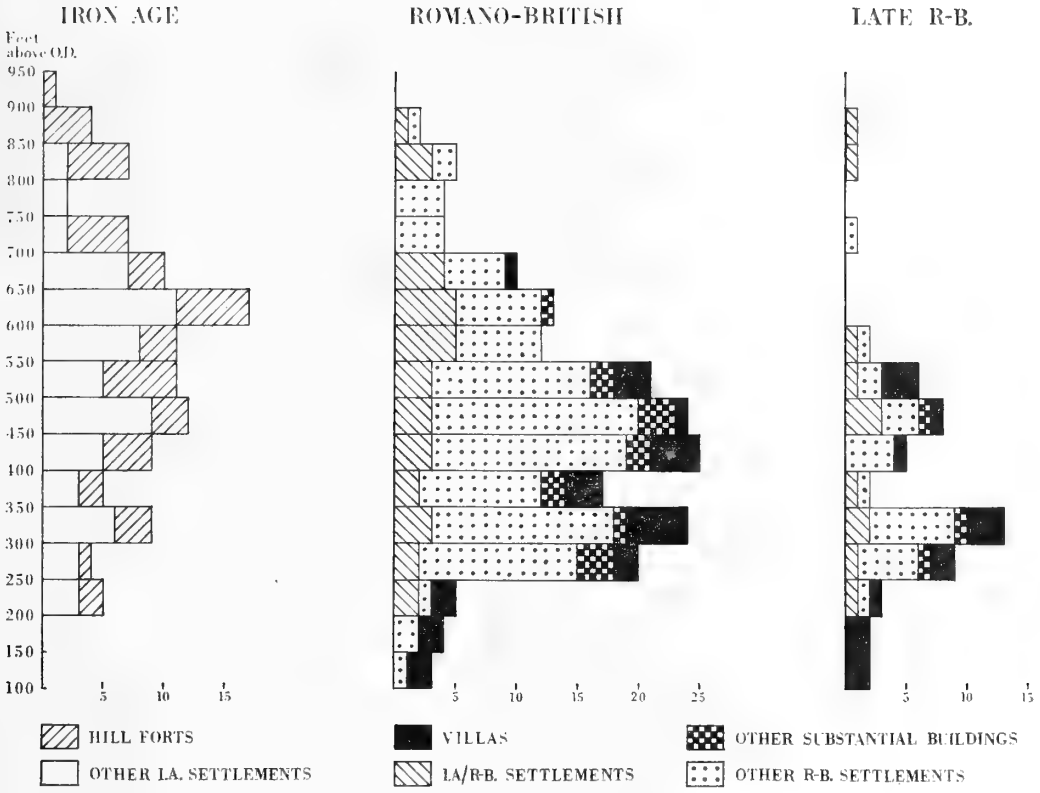

FIG. 3

Distribution of settlement sites in relation to height above sea-level.

The 114 Iron Age sites in the county range in height above sea-level from 200 ft. to over 900 ft., and since the majority are on Chalk their height distribution is related to that formation. Seventy (61.4 per cent.) of the sites, comprising 25 hill-forts and 45 other settlements, lie between 400 ft. and 700 ft. with a peak at 600–650 ft. It is of interest to note that the altitudinal distribution of hill-forts is surprisingly even, with scarcely any tendency to concentrate in the upper half of their height range, and that it mirrors fairly closely the distribution of the other Iron Age settlements. The Romano-British sites have a similar height range, from just over 100 ft. to 900 ft. above sea-level, but in general the majority lie at a lower level. One hundred and thirty-one (67.8 per cent.) of the 193 sites, including most of the villas and other substantial buildings, lie between 250 ft. and 550 ft., with a peak at 400–500 ft. Only 12 sites lie below this, but half of them are villas. On the Chalk the majority of sites lie between 250 ft. and 700 ft., with a peak at 500–550 ft., but off it they lie between 250 ft. and 500 ft., with a peak at 300–350 ft. Most of the 55 Late R-B sites are between 250 ft. and 550 ft. and reach a peak as low as 300–350 ft.

Distribution of Settlements in Terms of Siting (FIG. 5)

The siting of Iron Age and Romano-British settlements within Wiltshire may be said to be covered by six broad categories, namely, hill-top, spur, hill-slope or valley side, valley bottom, scarpfoot and lowland. Most of these terms are self-explanatory except, possibly, 'lowland' which is used to describe those few settlements on the almost flat, low-lying areas

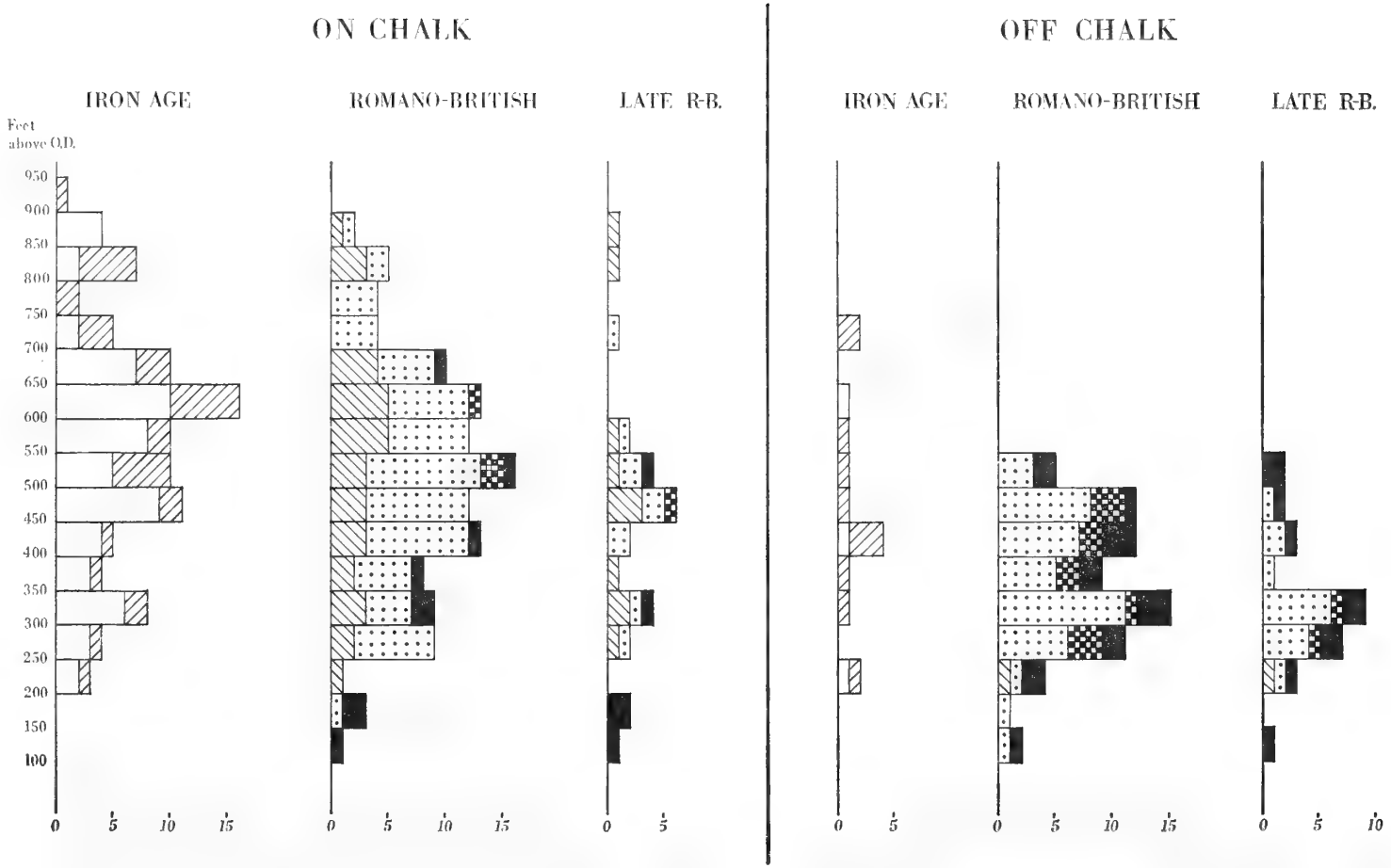

FIG. 4

Distribution of settlement sites in relation to sea-level both on and off the chalk. (For explanation of conventions, see FIGS. 2 and 3.)

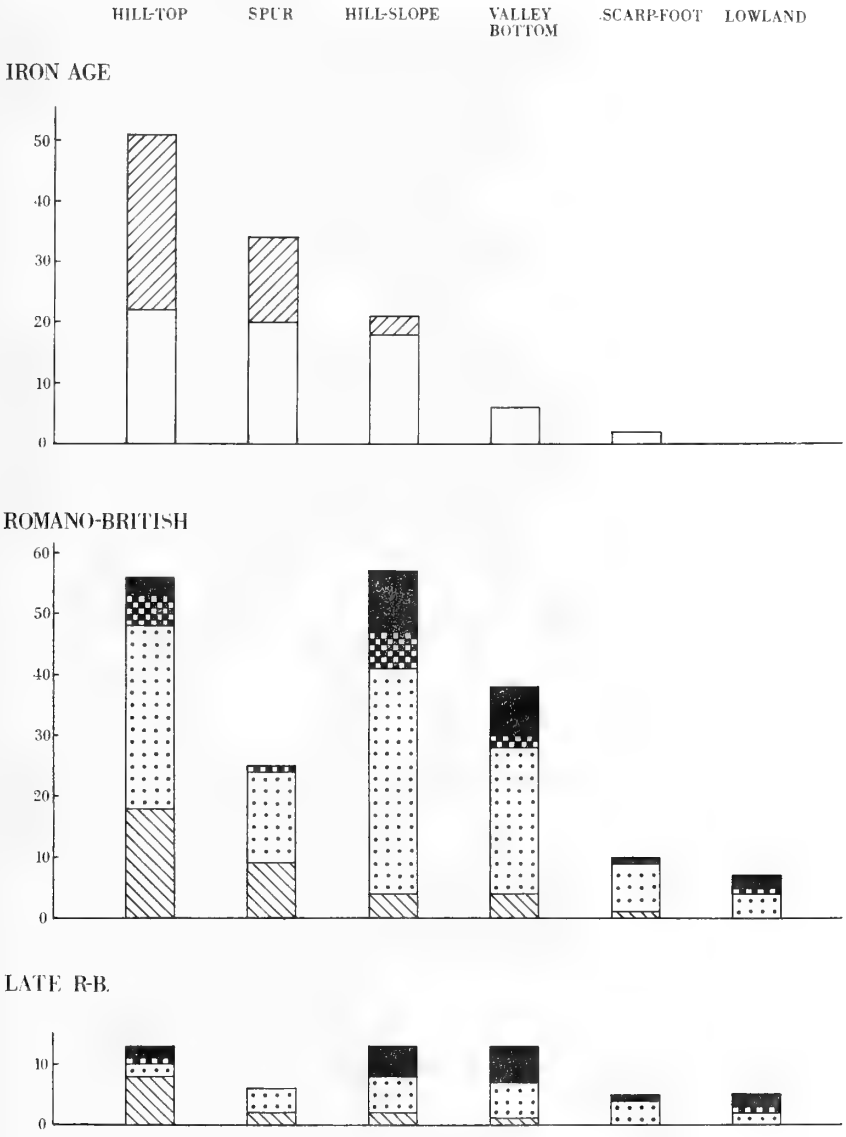

FIG. 5

Distribution of settlement sites in terms of siting. (For explanation of conventions, see FIGS. 2 and 3.)

within the clays, particularly in the extreme north of the county near the Thames. It will be realized that some settlements fall into more than one siting category and in such instances a choice has had to be made of what appears to be the most important.

Of the 114 Iron Age sites 51 (44.7 per cent.) are sited on hill-tops, 34 (29.8 per cent.) on spurs and 21 (18.4 per cent.) on hill-slopes. There are no lowland sites and only eight in valley or scarpfoot positions. Hill-forts, as might be expected, occupy well over half of the hill-top sites and nearly half of the spur sites. Other settlements appear in almost equal numbers in hill-top, spur and hill-slope positions.

The Romano-British settlements show a marked contrast in siting to those of the Iron Age. A smaller proportion of sites occupy hill-tops and spurs with a corresponding increase in the proportion of those occupying other situations, especially hill-slopes and valley bottoms. Of the total of 193 Romano-British settlements, 56 (29.0 per cent.) are on hill-tops, among them 18 I.A./R-B sites, but only three villas and five other substantial buildings, while only 25 sites (13.0 per cent.) are on spurs. Fifty-seven sites (29.5 per cent.), including 10 villas, are on hill-slopes and some 38 (19.7 per cent.) in valley bottoms, among them eight villas. There is, also, a corresponding rise in the number of scarpfoot and lowland sites, though their numbers remain small. Among the Late R-B sites there is a further increase in the proportion of valley bottom, scarpfoot and lowland sites.

Distribution of Settlements in Terms of Aspect (FIG. 6)

The aspect of a settlement, or the direction in which it faces, is rarely fortuitous and is, therefore, a further factor to be considered in any geographical analysis of early sites.[3] In Wiltshire a considerable number of both Iron Age and Romano-British sites have no obvious aspect, lying as they do on hill-tops, on the level tops of spurs, in valley bottoms and on the flat lowlands. Just over half of the total of 114 Iron Age sites—including most of the hill-forts—have no clear aspect by virtue of their spur and hill-top positions. Of the remaining 55 sites more than half face south and south-east. Practically none face west or north-west. Rather more of the Romano-British sites (116: 60.2 per cent.) have a

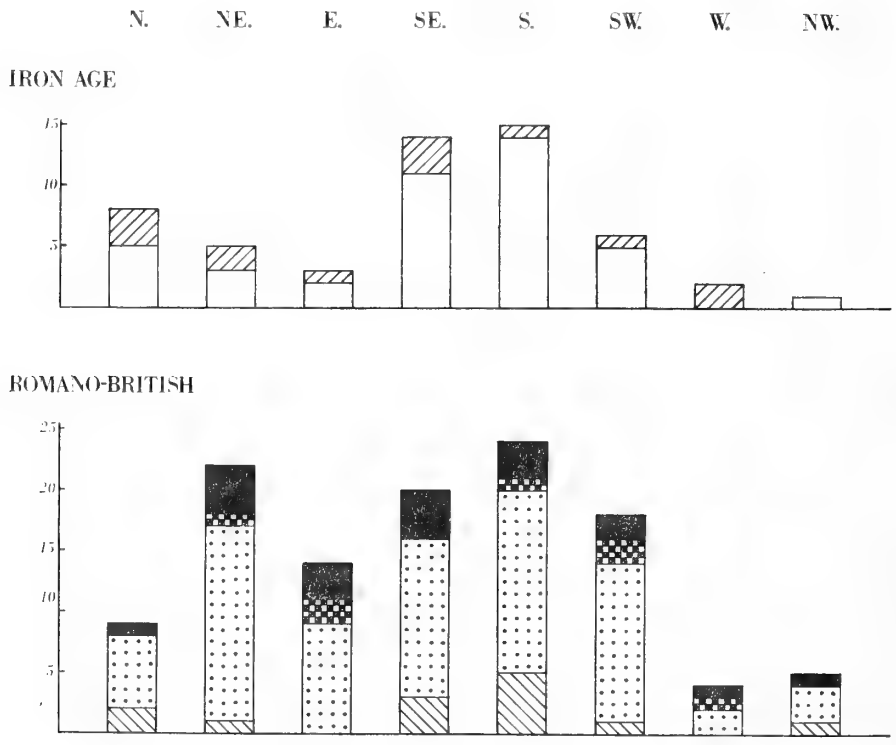

FIG. 6

Distribution of settlement sites in terms of aspect. (For explanation of conventions, see FIGS. 2 and 3.)

definable aspect and directionally they are less restricted than the Iron Age sites. Nearly 85 per cent. lie fairly evenly spread within an arc clockwise from north-east to south-west. Very few sites face west, north-west and north. The number of Late R-B sites with a clearly defined aspect is too small for meaningful analysis. A wider range of aspect, involving slopes facing south-west, east and north-east, as well as south and south-east, would thus appear to have been accepted, if not selected, for settlements in the Roman period than in the Iron Age.

Any conclusions which may be drawn from the above analysis must be qualified by the imperfect nature of our knowledge of early settlement, chiefly for the reasons stated briefly above. Certain points of contrast between Iron Age and Romano-British settlements do, however, emerge which are of interest and, it is to be hoped, of some validity. Iron Age settlements are almost entirely confined to the Chalk, the few which lie off it being on light, fairly easily worked soils, whereas a considerable proportion (nearly 37 per cent.) of Romano-British settlements lie off the Chalk, again mostly on light soils but some in areas of medium and heavy soils. Furthermore the more advanced, Romanized elements of rural settlement—the villas and other substantial buildings—are far more numerous off the Chalk than on it. A clear distinction also exists between Iron Age and Romano-British settlement sites in terms of their altitudinal distribution. In part this is due to the fact that many of the latter lie on the generally lower ground off the Chalk. But even within the Chalk the distinction remains true that the bulk of the Romano-British settlements lie at a lower level than those of the Iron Age. In combination with the above points differences of siting are also observable. Iron Age settlements are almost entirely restricted to hill-top, spur, and to a lesser extent, hill-slope positions. Romano-British settlements occupy a wider range of positions, with a marked increase in the proportion on hill-slopes and in valley bottoms, but with a far smaller proportion on hill-tops and spurs.

The tendency for Romano-British settlements to abandon hill-tops and spurs in favour of lower-lying situations, especially hill-slopes and valley bottoms, may find some explanation in the existence of the *pax Romana*. The Iron Age, particularly in its later stages, is characterized by its unsettled, if not downright warlike aspect—hill-forts are more than mere prestige earthworks—and it is not unreasonable, therefore, to expect to find settlements in upland positions providing a good defence or, at least, a good outlook. Such considerations, however, scarcely applied in the peaceful conditions which pertained during the period of the Roman occupation, and by then, in any case, the form of warfare had changed and with it the nature of defences. Thus, perhaps, colonization of land deemed unsatisfactory for settlement in the Iron Age became possible. In addition the Roman occupation gave rise to, and certainly accelerated, various technological advances. Some of these concerned agriculture, in which improvements had almost certainly begun in the later Iron Age, and it is perhaps these which were responsible for the movement of settlement into areas beyond the Chalk and for the beginning of a lengthy period of colonization, first of the lighter and ultimately of the heavier soils, which continued well into the Middle Ages. One further point raised by this analysis, and one on which P. J. Fowler has already taken issue,[4] is that concerning the relationship of Romano-

British settlements to those of succeeding periods in Wessex. The view, most cogently argued by the late O. G. S. Crawford,[5] that Romano-British settlements have an almost entirely upland distribution—'not a single one of them . . . lay down in the bottom of a valley, except possibly on the line of a Roman road'—and that they are almost totally unrelated to the essentially valley-bottom distribution of subsequent settlement, cannot be wholly sustained. Crawford failed to take account of the various factors, particularly human interference, which have contrived to produce a restricted and probably unbalanced picture of early settlement and, more seriously, based his generalizations on inadequate evidence by arguing from examples (that most dangerous of archaeological practices), and those chosen from only small areas within the chalklands. The present analysis covering a whole county indicates that a considerable proportion (nearly 20 per cent.) of Romano-British settlements lay in valley bottoms and that even within the Chalk the proportion is slightly over 12 per cent., with a further 6.5 per cent. in the bottoms of dry valleys. Furthermore, a number of Romano-British settlements lie under and adjacent to later settlements—nearly 15 per cent. for Wiltshire as a whole, and over 10 per cent. for the chalklands—hinting at the possibility that some of the latter are pre-Saxon in origin. As yet no satisfactory proof exists either way, but it is surely essential to keep an open mind in the matter and not prejudge the outcome.

[1] Information has been drawn primarily from *V.C.H. Wilts.*, I, i (1957) and the relevant sources referred to therein, and for the subsequent period up to and including 1966 from the pages of this journal.

[2] Ordnance Survey, *Map of Roman Britain*, 3rd ed. (1956), 10.

[3] I owe the suggestion to include this section to Dr B. T. Perry, who has himself carried out a detailed analysis of early settlement on the Hampshire chalklands.

[4] Thomas, C. (ed.), *Rural Settlement in Roman Britain*, C.B.A. Research Report 7 (1966), 54–67.

[5] Crawford O. G. S., *Air Survey and Archaeology* (1924), 3–11, esp. 11; Our Debt to Rome?, *Antiquity*, II (1928), 173–88.

THREE DESERTED MEDIEVAL SETTLEMENTS IN WHITEPARISH

by C. C. TAYLOR

THE PURPOSE OF this paper is threefold. First to discuss in detail the history of these three sites, which was not possible in the writer's earlier paper on Whiteparish;[1] second, to publish two plans of this type of settlement remains, which up to now have not received much attention in Wiltshire; third, to point out some of the problems encountered when trying to date the desertion of such sites in areas of dispersed settlements.

1. WHELPLEY (FIG. 1)

The site, covering some 5 acres, lies in the bottom and on the east side of an asymmetrical valley, now dry, formerly draining S.S.E. immediately west of the present Whelpley Farm (SU 231240). It is on Chalk, between 275 ft. and 251 ft. above O.D. The remains are very fragmentary and have been damaged in the past. In 1965 an area of remains to the east of the site was destroyed and as a result the writer undertook a survey. It is difficult to interpret what still exists, but certain features are clear.

The site is approached from the south by a broad sunken road or hollow-way, 25 ft. to 50 ft. wide and up to 2 ft. deep, which lies in the valley bottom and originally ran on to the north of the site. This is blocked and destroyed by two adjacent small rectangular embanked ponds, now dry, up to 3 ft. deep which have in turn been cut into by a large near square pond or quarry 5 ft. deep. To the east on the valley side is a series of irregular terraces with scarps up to 8 ft. high on which there are at least four subrectangular platforms ranging in size from 70 ft. to 22 ft. long and 25 ft. to 15 ft. wide, all possibly the sites of former buildings. Further east and immediately north-west of the Chapel are further platforms which also may be the sites of buildings. The flat area above the remains to the east is now occupied by the modern farm house, two cottages, farm building and yard, as well as the Chapel, but these all probably lie on part of the former settlement. Pottery comprising 'scratch-marked' wares, later medieval, post-medieval and modern can be picked up from the gardens of the present farmhouse, but nothing later than the 14th-century has been found on the earthworks themselves.

There is a multitude of documents referring to Whelpley, but it is extremely difficult to use them to help in explaining the reasons for and date of the desertion of the site. There can be no doubt that it originated as a secondary settlement colonized by people from the main village of Whiteparish, which lies a mile away to the south-east, for both its position on the edge of the former open fields of that village and its name, the clearing of the cubs or young people, suggest this.[2] It was certainly in existence by the 11th century at the latest, for it is recorded in Domesday Book as the three hide manor of Humphrey de Insula, called Frustfield.[3] This manor had a recorded population of 11, made up of 3 serfs, 4 villeins, 2 bordars and 2 cottars. What this means in terms of total population it is difficult to say for it is not certain whether some or all of these were heads of families. Perhaps a figure of between 35 and 50 people is about correct and thus we have at least a reasonably accurate idea of the population of Whelpley in 1086. Unfortunately this is

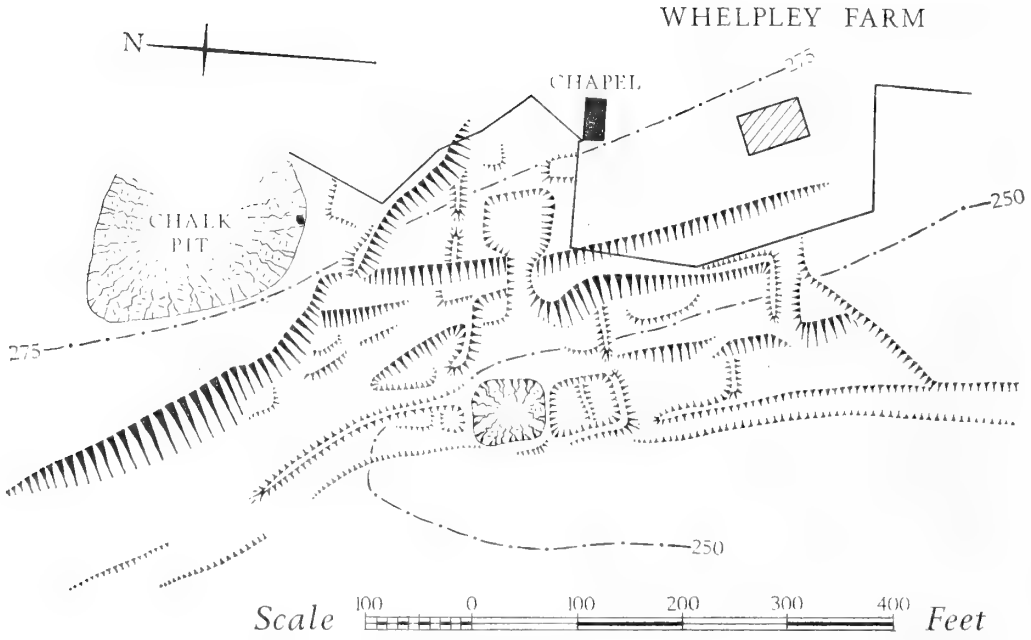

Fig. 1
Whelpley.

not only the first time that this can be ascertained. It is also virtually the last, for the later tenurial history of the manor, combined with the development of more secondary settlements in the area, makes it impossible to use the existing documents which at first sight appear to give population figures.

To deal with the tenurial problem first: it appears that soon after 1086, another manor, also listed in Domesday Book as the one and a half virgate estate of Bernard Paunce Volt, and again called Frustfield,[4] was incorporated into the original Whelpley Manor. This manor was almost certainly sited on what is today the western part of the present Whiteparish village[5] but was in 1086 probably only a single farm. These two manors remained as one unit until the 19th century and so at once we are faced with the problem that all population records will include this part of the modern village, which clearly continued to grow in size throughout the medieval and later periods. But this is not the only problem. The documents that do give population figures of any kind are usually those connected with taxation, and taxation in the medieval period in Wessex was usually based on the unit known as the tithing. In many areas the tithing only consisted of a village. But here in Whiteparish, because of its geographical siting, all the medieval tithings included not only the villages or hamlets after which the tithing was named, but also all the farms and hamlets which grew up in the forested southern part of the parish during the period 1100–1350[6]. Thus, by 1350 the tithing of Whelpley included not only the original settlement and the west end of Whiteparish village, but also at least the hamlets of Newton and Chadwell, the farms of Blackswell and Goldens, and, by the early 17th century, three other farms and a country house.

As a result of all these complications, such population figures as do exist are virtually useless. The 63 taxpayers who are listed for Whelpley tithing for 1377[7] and who appear at first sight to indicate that Whelpley was larger than Whiteparish itself only reflect the fact that Whelpley tithing was the largest in the parish, including as it did so many other

places of habitation in addition to the original Whelpley settlement. The same of course is true of the monetary figures listed for the various tithings for many of the existing Subsidy Rolls.[8] In fact there is no record of population for Whelpley between the 1086 figure of 35–50 people and the eight people who are recorded as living there in 1851.[9]

In order to get any idea at all of when reduction of population took place, one has to rely on other records and information, none of which is very conclusive. The fact that a Chapel (*see* below) was erected at Whelpley at some time during or prior to the reign of Henry III[10] perhaps indicates a flourishing community. Chaplains continued to be appointed to it until 1538, after which it was apparently disused, perhaps because there were no longer enough people living at Whelpley. The Manor House, which presumably was originally at Whelpley itself, was rebuilt in 1627 on a new site at the west end of Whiteparish village, again perhaps indicating that there were few people at Whelpley. In addition, the fact that there is no pottery to be picked up on the site later than that of the 14th century may possibly be significant. Later evidence suggests, but does not prove, that by the 17th century only the farmhouse and two cottages remained on the site.[11] We are therefore left with very little evidence for the date of the desertion of Whelpley beyond the fact that it perhaps took place somewhere between the 12th and 17th centuries.

Whelpley Chapel (FIG. 2)

Though not strictly part of the remains of the settlement, the chapel of Whelpley still exists and is perhaps worth a brief note. The building, which stands immediately north of the present farm, is now in the last stages of decay and will soon collapse if it is not demolished. It was already used as a stable in the 19th century[10] and until recently was a chicken house. It has had extensive 19th century alterations, but enough remains of the original building to ascertain its form.

It is now, and always was, a rectangular building, 37½ ft. long and 17 ft. wide externally, orientated east-west. It is 8½ ft. high to the wall plates, with plain gable ends. It was originally built of flint rubble with quoins of alternating blocks of green Chilmark stone and brown Heathstone. The quoins at the north-west, south-west, and south-east are still intact and the east end of the south side and the north end of the west side still retain their original flint rubble walls. Most of the south side and part of the west end have been rebuilt, apparently in the 18th century, in a mixture of flint rubble, ashlar, and brick,

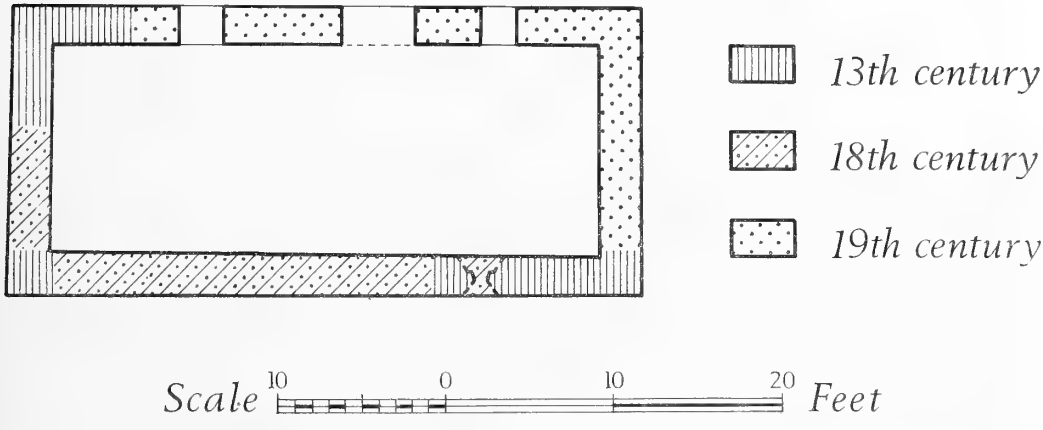

FIG. 2
Whelpley Chapel.

while all the east end and most of the north side are of 19th century brick and flint construction, in which are two plain window openings and a central doorway. In the south side, near the south-east corner, is a small window opening blocked with ashlar, $2\frac{1}{2}$ ft. above the ground, $1\frac{1}{2}$ ft. high and 2 ft. wide, with a small two-centred head, with chamfered edges and plain stops, possibly of 13th century date. The interior walls are faced with 19th century brick and the roof is a simple timber construction roofed with 19th century tiles.

As noted above the Chapel was already in existence by the 13th century and until 1538 continued to have Chaplains appointed to it. It was dedicated to St. Leonard.

2. MORE (FIG. 3)

The site, covering some 5 acres, lies on the south-west side of the broad open valley

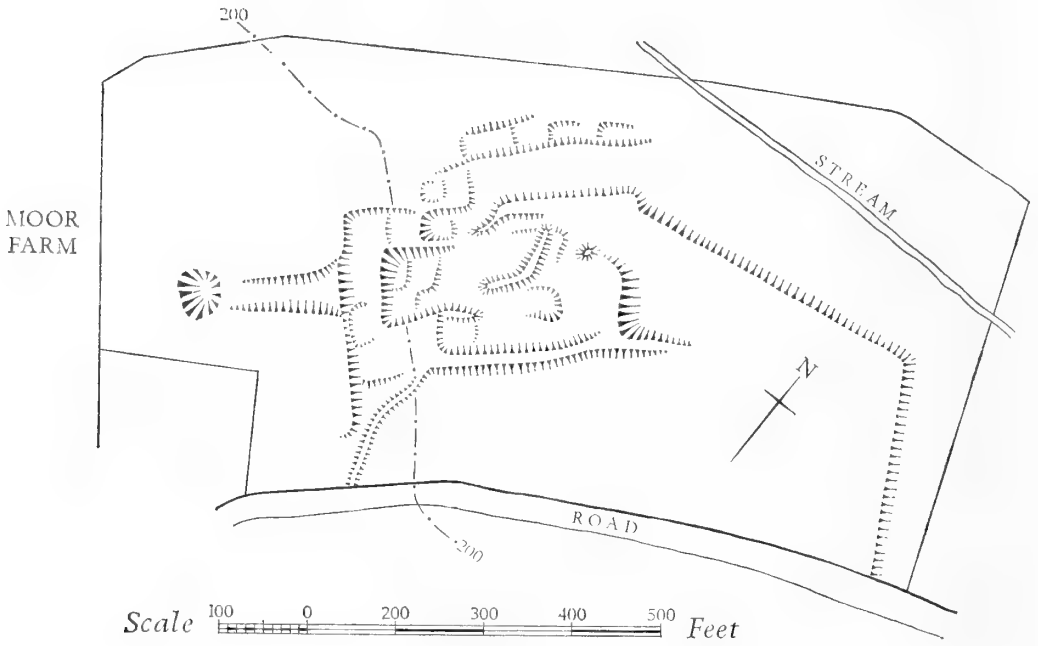

FIG. 3
More.

of a small stream draining south-east, immediately east of the present Moor Farm (SU 226222). It is on the sands of the Reading Beds at about 200 ft. above O.D.

The remains are reasonably well preserved, but again do not form any clear pattern. The main part of the site covers a roughly rectangular area, bounded on the south-east by a long bank up to 35 ft. wide and 3 ft. high and on the north-east, north-west and south-west by scarps up to 3 ft. high. The interior is occupied by a least ten rectangular platforms up to 30 ft. wide and 40 ft. long, all of which may be the sites of former buildings. To the north-east are five similar platforms, one of which is 50 ft. long. To the south and east is a large featureless area bounded on the north and east by a low scarp $1\frac{1}{2}$ ft. high and on the south by an existing hedge bank. A few scraps of 12th/13th century pottery have been found in the area.

As at Whelpley, in spite of numerous documents it is virtually impossible to give the population of this settlement at any date. It is indeed listed in Domesday Book as the one hide manor of Ulric,[12] with a recorded population of six, i.e. perhaps a total population of between 15 and 24. It had received its present name by the early 13th century at least,[13] presumably as a result of its near marshy situation. In 1338 it is termed a hamlet[14] and in 1428 it is again called a hamlet and at least six cottages are recorded then.[15] The next firm reference to its size is not until 1675 when it appears to have been reduced to a single farm.[16]

There are of course various documents which appear to indicate population, but none of these can be used. This is because, as at Whelpley, they are referring to the tithing in which More lay, and by the 14th century at least, the tithing included not only More but Abbotstone (now Tichborne Farm), a farm at Breach Mead in the forest to the south, and Witterns Hill Farm in the formerly detached part of the parish to the south. By the 17th century Newhouse and its estate buildings and cottages and Gills Hole Farm had also grown up in the area of the tithing. So again there is no evidence of the date of the desertion of the hamlet of More beyond the fact that it occurred perhaps between the late 14th and late 17th centuries.

3. COWSFIELD GREEN (Cowsfield Esturmy)

The site, which is strictly speaking a shrunken village rather than a completely deserted one, lies a mile east of Whiteparish village on a low southward projecting spur of London Clay at about 200 ft. above O.D., on the edge of the forested area to the south (SU 262233). On either side of the spur are small streams which join to the south to become the Park Water Brook. The spur top is occupied by a triangular area of common land covering some 12 acres, now much overgrown, bounded on the north by the main Salisbury-Romsey road (A.27) which is on the line of the original forest-edge trackway running east-west. The south side of the green is bounded by a minor road running south-east and then south through the forest. The east side now has no road along it, but clearly once had one for there is a cart track along part of it. Today there are three cottages along the north side, Cowsfield Manor Farm and a cottage on the south side, and two cottages on the east. However, it is clear that there were once many more houses round this green. On the north side, immediately east of the existing cottages and gardens, are at least four and perhaps five rectangular closes up to 70 ft. long and 30 ft. to 50 ft. wide, bounded by low banks, with disturbed areas within them at their southern ends indicating former building sites. On the east side of the green and east of the small south-flowing brook there are a further five closes of similar dimensions also with indications of former building sites within them. On the south side, the adjoining fields have been ploughed, but patches of flint cobbles and quantities of pottery from the 12th to 17th centuries indicate that there were also buildings here.

The problem of dating the partial desertion of this site is just as difficult as with the previous two. The early history of the settlement has already been published.[17] All that is necessary here is to indicate that it is recorded in Domesday Book as the two hide manor of Richard Sturmid[18] who gave his name to the village, with a recorded population of 2 villeins and 8 coscez, i.e. perhaps a total population of 16 to 40. Thereafter there is no accurate record of population, for all the later documents which give any indication of size again refer to the Tithing of Cowsfield which by the 13th century at least included two other villages, Cowsfield Spilman and Cowsfield Louveras, and later on at least four outlying farms.[19] In fact after 1086 there is no population figure until the mid-17th century when the eight freeholders of the village listed as being assessed for Ship Money in 1636[20] may indicate a substantial fall, though this is not at all certain. One further piece of evidence comes from a map of *c.* 1620 showing lands north of the village belonging to Corpus Christi College, Oxford.[21] This indicates that the houses along the north side of the green had already gone by this time.

DISCUSSION

The complete inability to find the date of the desertion of these three settlements raises problems with implications extending far beyond a single parish in south-east Wiltshire. Of the thousands of deserted medieval settlements in this country many lie, as at Whiteparish, in areas of multiple or dispersed settlement. In such areas most documents, especially those drawn up for taxation purposes, are virtually useless as sources of population figures. In the course of his official work the writer has been faced with this problem in areas as far apart as Dorset and Cambridgeshire. For example, at Knowlton, Dorset, where there are extensive earthworks of the former village, the surviving documents purport to give a reasonably accurate record of its population in 1086, 1327, 1333 and 1539. Yet because all the documents in fact refer to the Tithing of Knowlton and not just to the village they are quite meaningless. The tithing included another village, the present Woodlands, another deserted hamlet, Baggeridge Street, and a number of outlying farms, all certainly in existence by the 14th century.[22] All the available documents include the population of these other settlements, which almost certainly varied in size during the medieval and later periods. Thus there is no way of finding the actual date of desertion, except that it had occurred by the early 17th century.

This difficulty has been noted by other workers on deserted medieval settlements, notably by M. W. Beresford working in Oxfordshire.[23] How one solves it is yet another problem. Theoretically the only answer is excavation, which will produce the archaeological evidence for the abandonment of the settlement. However, it *is* theoretical, primarily because it is practically impossible to excavate a deserted settlement completely and to ascertain the date of desertion must involve *total* excavation. The excavation of one or two house sites and their associated yards and barns advances knowledge of building techniques and living conditions, etc., but it will only give the date when those particular houses were abandoned and not the date of the desertion of the whole site. The reason for this is that, in the writer's experience, many of the deserted medieval settlements, at least in Wessex, were not deserted suddenly but gradually declined over a long period. In addition, even if it were economically possible to excavate totally a deserted village, many sites would be useless owing to the existence of a modern farm. Thus in Whiteparish, while the total excavation of the settlement of More, which is not affected in this way, might produce evidence of the date of desertion, a total excavation of the Whelpley settlement would be useless. There can be no doubt that the present farm, its yard and buildings, cover a large part of the former settlement and so have effectively destroyed much of the archaeological evidence.

The writer can offer no solution to this problem of dating the desertion of medieval settlements in areas of dispersed settlement. Perhaps there is none, but at least the difficulties must be recognized and great care exercised in the interpretation of both the historical and archaeological evidence.

ACKNOWLEDGEMENTS

The writer would like to thank Mr. G. H. Morgan of More Farm and Mr. A. G. Parsons of Whelpley Farm for their kindness and help during many visits to their respective

farms; Mr. G. Thomas for help with the surveys, and Mrs. G. M. Lardner-Dennys for drawing the plans.

[1] *W.A.M.*, 62 (1967), 79–102.
[2] *W.A.M., op. cit.; The Place Names of Wiltshire* (1939), 390.
[3] *V.C.H., Wilts.*, II, No. 282.
[4] *V.C.H. Wilts.*, II, No. 380.
[5] *W.A.M., op. cit.*, 83.
[6] *W.A.M., op. cit.*, 87–90.
[7] *V.C.H. Wilts.*, IV, 308.
[8] *V.C.H. Wilts.*, IV, 299.
[9] 1851 Census Returns, P.R.O. HO/107 1846.
[10] G. Matcham, *Hundred of Frustfield* (1844), 41.
[11] Wilts. C.R.O., 464/55.
[12] *V.C.H. Wilts.*, II, No. 507.
[13] *The Place Names of Wiltshire* (1939), 391.
[14] *Wilts. I.P.M. 1327–77*, ed. E. Stokes (1914), 182.
[15] P.R.O. C. 139/50/7.
[16] Wilts. C.R.O. 459 (Will of Richard Turk).
[17] *W.A.M., op. cit.*, 83.
[18] *V.C.H. Wilts.*, II, No. 423.
[19] *W.A.M., op. cit.*, 87, 96.
[20] Matcham, *op. cit.*, 121.
[21] Corpus Christi College, Oxford, Documents, Langdon II, 18.
[22] *Proc. Dorset Natur. Hist. Archaeol. Soc.*, 88 (1967), 209; and *see* R.C.H.M. (Eng.), *Dorset* IV, forthcoming, under Woodlands parish.
[23] K. J. Allison, M. W. Beresford and J. G. Hurst, *The Deserted Villages of Oxfordshire* (Occasional Paper No. 17, Dept. of English Local History, Leicester University, 1965), 17 and 19.

WATER-MILLS ON THE RIVER BOURNE, SOUTH WILTSHIRE

THE EXCAVATION OF THE SITE OF GOMELDON MILL WITH A NOTE ON LOCAL POST-MEDIEVAL POTTERY

by JOHN MUSTY

SUMMARY

THE RIVER BOURNE is of somewhat variable seasonal flow and this is recognized in the place-names of four villages lying on it. These are the adjoining villages of Winterbourne Earls, Winterbourne Dauntsey and Winterbourne Gunner; a fourth 'Wintreburne' (as it is called in Domesday) is now Gomeldon.

Despite its intermittent flow, a series of mills are recorded along the stretch from the point where the river joins the Avon (Mumworth Bridge) to Newton Toney (10 miles north of Mumworth). Of 12 mills previously recorded, only three now exist. One of the lost mills, that of Gomeldon, is of special interest to the writer in view of excavations currently being undertaken by the Salisbury Museum Research Committee on the site of the medieval village of Gomeldon.

An opportunity arose, in advance of the building of a house, to examine the site of what was believed to be that of an 18th century mill, long since demolished, and the investigation is the subject of this report. It was hoped that a series of mills would be uncovered, starting with the Domesday mill. Unfortunately, the only occupation that could be demonstrated in the form of structures was of 17th/18th century date. Even these structures, which were sited on the river bank, could not be associated directly with the remains of water-mill buildings.

The small amount of pottery recorded from the site is also discussed and, as this is the first post-medieval pottery to be published from Southern Wiltshire (and possibly from Wiltshire as a whole), a note has been added on the local kilns, including Verwood. The latter industry although sited in an adjoining county (Dorset) must have been the main local supplier of the post-medieval 'vernacular' pottery of South Wiltshire.

THE BOURNE MILLS

In what follows the mills have been listed in an order which starts from the junction of the River Bourne with the River Avon and then works progressively upstream (FIG. 1).

The list is mainly based on Domesday references, but as Mr. Richard Willoughby has pointed out to me, it is not clear what the compilers of Domesday meant by

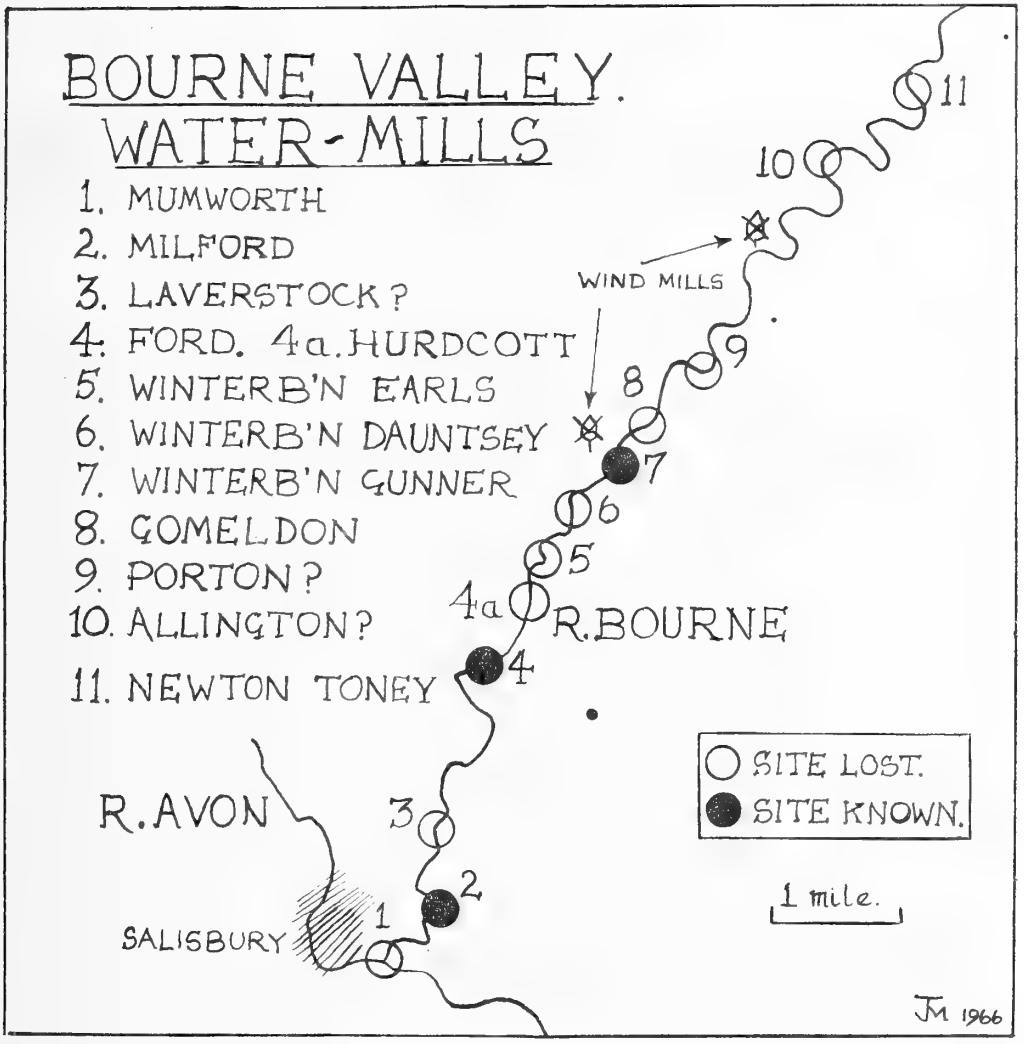

FIG. I

the term 'mill' and he suggests that one should not assume because a mill is located in a manor with a stream that the mill is necessarily powered by water—it could be a horse- or hand-mill—or that any recognizable water-mill site need be that of the Domesday mill. The relevance of these comments to mills on the River Bourne hardly needs stressing.

Most of the mills have been distinguished by the label 'lost'. This term is to be understood in a special sense only as indicating that the mill buildings have either totally disappeared or no longer survive in a recognizable mill form, and without prejudice to the fact that minor remains may survive or the site may be marked on

a map. A number of the sites in fact appear on Andrew & Dury's map of 1773 and these are distinguished in the list as 'A. & D., 1773'.

1. *The Mill of Mumworth* LOST

The Cartulary of St. Nicholas's Hospital, Salisbury, contains a document inserted (p. 154) in a 16th century hand describing a perambulation of the forest of Pancett (Clarendon):

'And so by the water of Avon goying up Always unto the saide Moniworthe, where sumtyme was a mill.'

2. *Milford*

Still in existence but converted to a pair of houses. A. & D., 1773.

3. *Laverstock* LOST

'There is a mill paying 7s. 6d.' (Domesday.)

Mr. Willoughby tells me that some years ago he located an arch over a stream near a house called Mill House and that the O.S. 6-inch map of 1887 marks Laverstock Mill (Corn) at SU 157304. Also marked A. & D., 1773.

4. *Ford*

Still in existence, and the mill house is lived in. Not mentioned in Domesday. A. & D., 1773.

4a. *Hurdcott* LOST

'In Herdicote ½ mill paying 6/–.' (Domesday.) A. & D., 1773.

5. *Winterbourne Earls* LOST

'There is a mill paying 15/–.' (Domesday.)

6. *Winterbourne Dauntsey* LOST

'There is a mill paying 12/6.' (Domesday.)

7. *Winterbourne Gunner*

'There is ½ a mill paying 3/9.' (Domesday.)

There is still a mill at Winterbourne Gunner. A. & D., 1773.

8. *Gomeldon* LOST

'There is a mill paying 15/–.' (Domesday.)

In 1518 the site of the mill was said to be in the possession of Nicholas Wrotte and the mill decayed. (Abbot Beere's Terrar *vide* Hoare's *Modern Wiltshire* (Hundred of Alderbury) p. 617.) Hoare's map of 1821, which illustrated the course of the Old Sarum–Silchester road in *Ancient Wilts., Roman Aera*, shows a building on the supposed site. A. & D., 1773.

9. *Porton* LOST

'There is a mill paying 32d.' (Domesday, but not mentioned in the Geld Rolls.) Porton was only a small estate and the low value of the mill suggests that it represents a share of a mill sited elsewhere.

10 *Allington* LOST

'There is a mill paying 20/–.' (Domesday.)

11. *Newton Toney* LOST

'There is a mill paying 10/–.' (Domesday.)

NOTE: In Hoare's strip map (*Ancient Wilts., Roman Aera*, 1821) showing the course of the Roman Road (Old Sarum–Silchester) a windmill is marked at Boscombe. In addition, there are still the substantial remains of a windmill on the Winterbourne Gunner/Gomeldon boundary north-east of the road from Winterbourne Gunner to High Post. Both mills have been marked in FIG. 1. Andrew & Dury's map also shows the suggestive place-name of 'Windmill Post' east of Idmiston.

THE SUPPOSED SITE OF THE GOMELDON MILL

At the point on the river where buildings are shown on the maps cited earlier, there is today a hatch with a considerable head of water behind it and, below it, a pool which is also a recognized fording place across the river. Inspection of the river up-stream from the hatch demonstrated that it was in fact a mill-cut embanked on one side. This cut had been narrowed as it approached the hatch, a characteristic which one might expect to find at a mill. The hatch was examined carefully for evidence of the wheel-housing, but none was found. The bed of the mill-cut was also examined (by wading) for evidence of stone or other material which might have come from the mill. This proved a very difficult operation due to a considerable accumulation of mud which overlay the river gravel; a firm base of the latter was not encountered nearer than approximately 50 yards from the hatch. The examination of the mill-cut did not provide any evidence for alternative sitings for the mill to that provided by the existing hatch.

Thus the site as seen today consists of a substantial masonry structure for supporting a hatch. Uphill from the river the bank runs back from the mill-cut as a flat expanse some 50 ft. wide, then rises to another flat area previously the site of a bungalow (recently burnt down) and now that of a house in course of erection (owner, Dr. Seamer). The whole site thus described forms part of a paddock 200–300 yards long running alongside the mill-cut and bounded on its uphill edge by the lower (and presumably earlier) road from Gomeldon to Porton. This latter road should also, in part, coincide with the Roman road from Old Sarum to Silchester.

In the paddock, a number of house platforms are visible in addition to that presently occupied by the new house. In all, it is likely that four to five houses stood in the paddock area. The flint walls of one of these were visible in the foundation trenches of the new house and, as 12th/13th century pottery was also recovered from the trenches, it is likely that all the platforms were initially occupied by medieval houses and these formed a northwards extension of the main village nucleus which has been the subject of a series of excavations during the last few years.

EXCAVATION OF THE MILL SITE[1]

A trench 3 ft. wide and 33 ft. long was cut at right-angles to the river bank; in addition a lateral extension 8 ft. wide was made at the river end of this trench.

Adjacent to the river bank were large tooled blocks of greensand. A brick wall (red bricks) had been founded on the upper course of these blocks. At approximately 20 ft.

from the bank another wall was uncovered, again of red bricks, but this time founded on rammed chalk and flint with a paving of yellow brick running beneath the foundations. This latter paving was at a depth of 1 ft. 6 in. from the present ground surface. The second wall was at a distance of approximately 16 ft. from the first wall, and the two walls must represent the sides of a building fronting on to the river. In addition to the paving of yellow brick there were also shallow drains running at an angle to the two walls. These were floored with complete roof tiles laid flat and edged with either red or yellow bricks.

Between the present ground surface and the paving was a mass of building debris consisting mainly of chalk rubble and brick. This debris contained quantities of post-medieval pottery; in addition large sections of supposed 'Verwood' type bowl rims were found lying on the paving. Beneath the paving was a uniform layer of gravel and river debris and this was taken to be the undisturbed 'natural' surface. Thus there was no evidence of medieval occupation of the area trenched, although stray medieval sherds were found. Medieval pottery was found in greater abundance high up the slope away from the river during the digging of the foundations for the new house.

FINDS

Pottery and a spoon (FIG. 2)

1. Bowl with fluted rim. Fabric is a pinky-buff colour. Strong internal mustard-yellow glaze; only specks of glaze on outside. (On tiled floor and destruction level above it.)
2. Ware and glaze almost identical with that of No. 1. (On tiled floor.)
3. Similar ware but specks of glaze only. (Destruction level.)
4. Rim from a bowl with a fluted cordon. Pinky-buff fabric with a strong internal greenish-yellow glaze. (Destruction level.)
5. Large storage jar. Buff fabric, pinkish in fracture. Strong internal glaze similar to that of No. 1, but also a band of greenish-yellow to colourless glaze on the outside running round the under edge of the rim flange. (On tiled floor.)

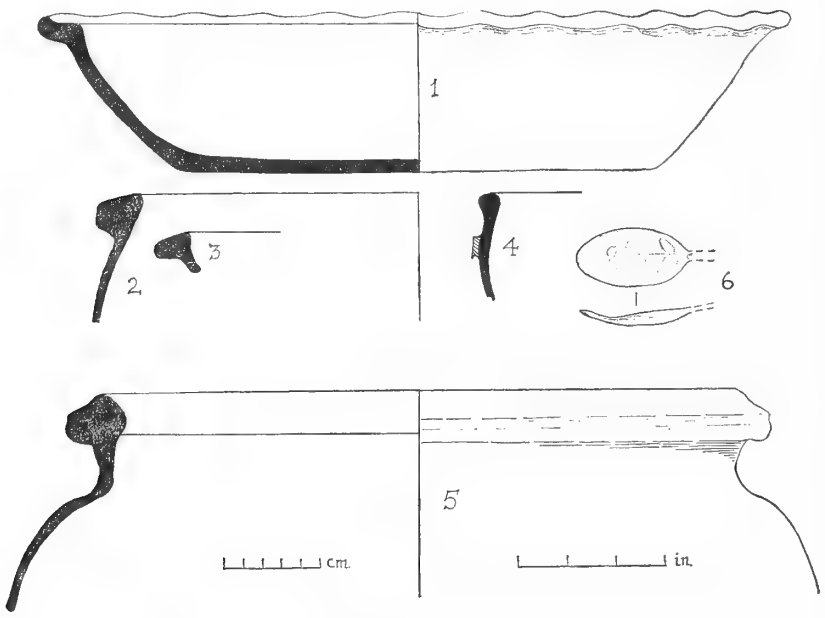

FIG. 2

Post-medieval pottery and pewter spoon from the site of Gomeldon mill.

6. Bowl of pewter spoon decorated with the chased design of a flower (marigold?). There are indications, at the handle junction, that the handle was also decorated. In the opinion of Mr. H. de S. Shortt, F.S.A., the shape of the bowl suggests a late 17th/early 18th century date. He has also pointed out that the presence of decoration on the *inside* of the bowl is unusual and that the spoon, which is smaller than the normal English spoon of the period, may not be of English manufacture (Dutch?). (From a brick-lined drain running obliquely across the tiled floor.)

Not illustrated

Pottery included pieces of grey stoneware and china (including willow-pattern); there was also one sherd of Staffordshire combed ware.

Building materials included red and yellow bricks.[2] The yellow bricks are 2 in. thick (or $2\frac{1}{4}$ in.), $4\frac{1}{8}$ in. wide and $9\frac{1}{4}$ in. long. Neither type has a depression ('frog') in the upper surface of the brick characteristic of examples of the 19th century onwards. The dimensions of the bricks, and the absence of the 'frog', suggests a 17th/18th century date.

Large quantities of flat roof tiles in a brick-red fabric were also obtained as these had been used for lining the bases of drains. The tiles are $10\frac{1}{2}$ in. long by 6 in. wide by $\frac{1}{2}$ in. thick. There are two peg holes ($\frac{1}{2}$ in. diameter) approximately $\frac{3}{4}$ of an inch from one end of the tile. (A sample tile has been deposited in Salisbury Museum.)

NOTE ON POST-MEDIEVAL KILN SITES SUPPLYING THE SALISBURY AREA

In the Salisbury area, cottage gardens, and the majority of medieval sites with some post-medieval occupation, can be expected to produce examples of coarse pottery with thick internal yellow or green glaze which is undoubtedly of local manufacture. Indeed, the pottery assemblages from these sites divide into the products of the 'commercial potteries' (table wares, etc.) and the 'vernacular potteries' (kitchen wares). That from the vernacular potteries may be expected to predominate in the immediate post-medieval period and to be gradually replaced in time by products of the commercial potteries to such an extent that eventually it has become no more than a souvenir ware. The wares illustrated in FIG. 2 are a product of the local vernacular potteries and there is also a large representative collection in Salisbury Museum.

The local potteries are, as yet, little understood and this note only marginally increases our knowledge of them. It is, however, hoped that its publication may draw attention to a field of study worthy of exploitation.

The better known sites are Verwood (near Ringwood) and Alderholt (near Fordingbridge), both on Cranborne Chase. These can also be considered as lying on the western borders of the New Forest and to be taking advantage of the available timber and clay deposits in the same way as did the New Forest potters of the Romano-British period. Another pottery is that of Crockerton, near Warminster. This, as shown by its name and by documentary references, was in existence by the 13th century, but its subsequent history is unclear. Hoare makes reference to it in *Ancient Wilts.* (Vol. I, p. 51.)[3] There are a number of references to post-medieval potteries in Aubrey's *Natural History of Wiltshire*, viz.: that potteries existed at Braden Forest, Ashton Keynes and at Deverill (Crockerton). At Vernknoll, near Easton

Pierce, he says, 'I bored clay as blew as ultra-marine, and incomparably fine, which perhaps might be proper for Mr. Dwight for his making of porcilaine.'

Much of the local post-medieval pottery in Salisbury Museum is attributed to the Verwood manufactory. In addition, there is an extremely interesting group of early 17th century puzzle-jugs of unknown local source. These have been broadly attributed to the Wylye Valley, but as there are not suitable clay deposits shown on the geological map along much of this valley it is possible that the nearest westerly source for these would be Crockerton.[4] Alternatively, and possibly more likely, these could have come from the Clarendon area (immediately adjacent to Salisbury to the east) where there are ample deposits of suitable clay (London Clay and Reading Beds). Supporting evidence for such an attribution is available in the form of vessels made in an experimental firing (by Mr. R. Cook in about 1864) using the Clarendon clays. These are exhibited in the Museum along with the puzzle-jugs and are remarkably similar to them. Thus if the puzzle-jugs are from Clarendon, then an early post-medieval pottery industry remains to be discovered there with a range of products as yet unsuspected.

However, in 1965, I had the opportunity of seeing some of the surviving evidence for the Verwood industry in the company of Mrs. Meshech Sims, who is the widow of the last of the Verwood potters and now over 80 years of age. From what I saw I concluded that much of the local late post-medieval pottery (i.e. the kitchen wares with thick yellow to green internal glazing) did in fact come from Verwood.

Mrs. Sims told me that at one time 13 potters were operating in Verwood. The last pottery to close was the 'Cross-Roads' in the centre of Verwood (*c.* 1950); previous to that the Black Hill pottery closed in 1920. This latter site possibly started manufacturing *c.* 1850 and thus there are a large number of sites earlier than this yet to be located at Verwood, including the kilns which produced the pottery described in the present report. The owner of the Cross-Roads Pottery kindly presented the writer with examples of the products (a jug[5] and a bowl) and these have now been deposited in Salisbury Museum and are clearly descendants of a medieval tradition. In fact, more than anything, the closure of the industry was the result of attempts to modernize it by the introduction of pug mills, electric kilns, powered-wheels and an improved repertoire (cups and plates, etc.).

Previously, the clay (obtained from Hotwell and subsequently Lytchett Minster brick works) was soaked with water for a week and then trodden with bare feet (the potters continued to do this even after the introduction of the pug mill). The wheels were operated on a crank principle powered by an apprentice using a stick. At the time of the visit the Cross-Roads potter's workshop was still standing complete with wheel. In the loft were quantities of unsold pots and vessels unsuitable for sale; the vessels deposited in Salisbury Museum came from this collection.

The kiln at Black Hill, which was constructed by Mr. Sims's father, was in use for approximately 70 years. The greater part of it is still standing in the garden of Purbeck House, Black Hill, in the form of a large mound almost as high as the house. In an adjoining paddock can be seen the potter's workshop and cottage, the latter mud-walled.

The Black Hill Kiln was apparently brick-built (doubtless of local bricks,

examples of which bearing the Verwood stamp can be found in the garden) with a mound of soil heaped around it. This soil contains a high proportion of wasters so that the mound is essentially a waster heap. It was not possible to expose any of the internal kiln structure but Mrs. Sims said the oven was circular (approximately 15 ft. diameter) with single fire-hole. The floor was raised and the kiln was loaded and unloaded from the top (a photograph taken in 1938[6] at the Cross-Roads kiln shows this operation in progress using a ladder). Mrs. Sims described a typical load as consisting of 'pans, pitchers and smaller vessels'. She also said that, following loading, the top of the kiln was patched with waster sherds, the kiln lit and then, after three days or so, flames would have started to lick out of the top of the kiln. Firing was then continued until 6–8 ft. flames appeared.

There is also extensive evidence for brick-making in the Verwood area. In the woods at Ebblake is a series of grass-covered earthworks amongst which Mr. Bloomfield has identified at least three kilns and a workshop.[7] Large circular brick kilns (nine flues with a walk-in entrance) are still standing in 'Hopkin's Yard' near Verwood railway station, although at the time of our visit these were being dismantled as a source of the hand-made bricks used in their construction.

Up to the time of writing there has been no opportunity to visit the Alderholt kilns. Some work on these has been undertaken, however, by Mr. Morley-Hewitt[8] of Fordingbridge, and he has suggested to me that the Alderholt industry is probably earlier than that of Verwood.

[1] Undertaken with the help of members of the Salisbury Museum Archaeological Research Group. The help of Mr. David Algar is especially acknowledged.

[2] Locally 'yellow bricks' are described as 'Fisherton Brick', i.e. the origin of these is attributed to the brick kilns based on the brick-earth deposits in the Fisherton area of Salisbury and first worked in 1706.

[3] '. . . Crockerton, where a large pottery is at present situated. The names of many adjoining places, such as Pottle Street near Horningsham, Potter's Hill, Crockerton . . . prove that an extensive manufacture has been carried out.' As Mr. Richard Willoughby once pointed out to me, Hoare's *Ancient Wilts.* is a valuable source for information relating to both medieval and post-medieval archaeology as it records the countryside that Colt Hoare saw at the beginning of the 19th century.

[4] Mr. Hugh Shortt has reminded me of the suggestion that the maker of the puzzle-jugs was a W. Zillwood (the initials W.Z. appear on two of the jugs in Salisbury Museum, one dated 1603, the other 1606). He himself believes that this potter worked at Amesbury.

[5] This jug has an impressed 'Verwood' mark on its base of a hitherto unrecorded type.

[6] The activities of the Verwood potter were recorded, with photographs, in the *Evening Standard*, May, 1938. The photographs show the preparation of the clay, loading the kiln, etc. They were taken by Photopress Daily Press Photographic Agency, 31 St. Annes Chambers, Broadway, E.C.4.

[7] Mr. Bloomfield of Ringwood has been undertaking a study, at present unpublished, of the Verwood pottery and brickmaking industry. At his house he has a considerable collection of Verwood vessels. He also has Mr. Meshech Sims's pattern book.

[8] See, for example, his book, *The Story of Fordingbridge in Fact and Fancy* (1966).

ANGLO-SAXON SCULPTURE AT KNOOK

by H. M. TAYLOR

THE CHURCH OF St. Margaret at Knook, which forms the subject of this note, has a very peaceful setting in a cul-de-sac beside the River Wylye, about five miles east-south-east of Warminster, and only four hundred yards from the busy main road that leads from Salisbury to Bath. The church was extensively restored by Butterfield in 1876.

The remarkable carved tympanum of the blocked south doorway (see PL. III) was generally regarded as Norman until Sir Alfred Clapham drew attention to the similarity between its design and that of the border of folio 69 of Lambeth Palace Manuscript 200.[1] Clapham dated the Lambeth Manuscript early in the 11th century and he consequently placed the carving in stone at Knook among the examples from the end of the Anglo-Saxon period. A slightly earlier dating is perhaps now justified by Professor Wormald's assignment of the Lambeth Manuscript to the latter part of the 10th century.[2]

In addition to the tympanum, there is carving of Anglo-Saxon character on the capitals of the shafts beside the south doorway, and also on two re-used capitals inside the church, now supporting the wooden chancel-arch.[3] There is also a short length of early interlacing ornament built into the east wall of the chancel, behind the altar; but only the northern part, about 1 ft. 3 in. long, is original, while the remaining length of about 4 ft. is a modern copy of the earlier work.

The sculpture on the tympanum is flat in profile, and is also in very low relief; it seems to have been formed by cutting back the flat face of the stone to a depth of about a quarter of an inch to leave both a border and also the pattern itself standing in front of the slightly sunken background. The pattern shows two confronted animals enmeshed in broad flat tendrils of foliage. One of the animals has four properly formed legs whereas the other, on the left, has a full complement of properly shaped legs at the front only, while at the back there seems to be only one leg, wrongly placed, and a curiously contrived body that runs off into something very like the foliage.

Sir Alfred Clapham's comparative illustrations of the tympanum and of the Lambeth Manuscript show only a small part of each; and even the part of the tympanum which he shows has not been completely drawn, no doubt because of the very real difficulty of interpreting the exact configuration of the outlines in their present weathered state.

It seems to me important to preserve the completest possible record of this interesting sculpture and to set it side by side with a more complete drawing of the Lambeth Manuscript. PL. III therefore shows (a) the complete doorway and (b) the tympanum. FIG. 1 is a line drawing made by tracing from the photograph

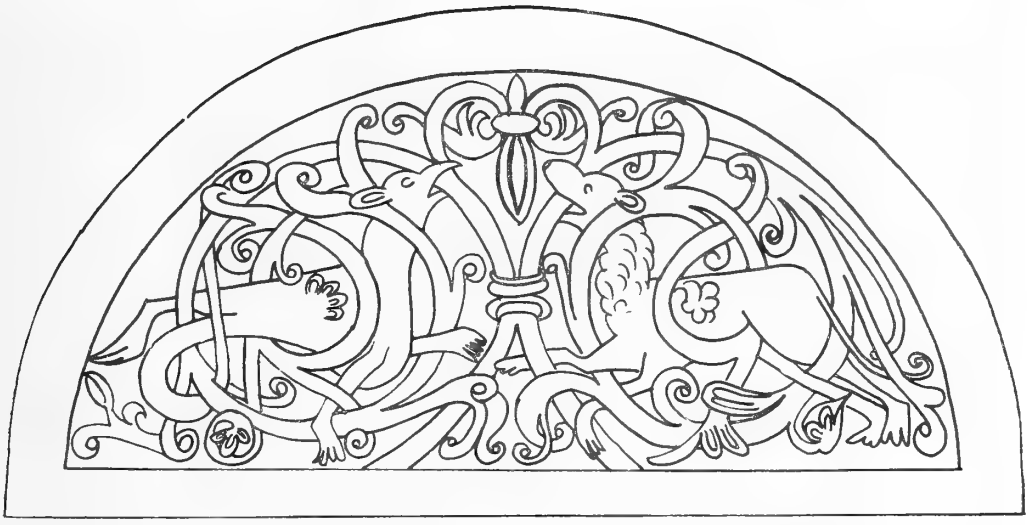

FIG. 1

DETAIL OF THE KNOOK TYMPANUM

This drawing was traced from an enlargement of the photograph in PL. IIIb, and the detail of doubtful features was checked subsequently on the spot.

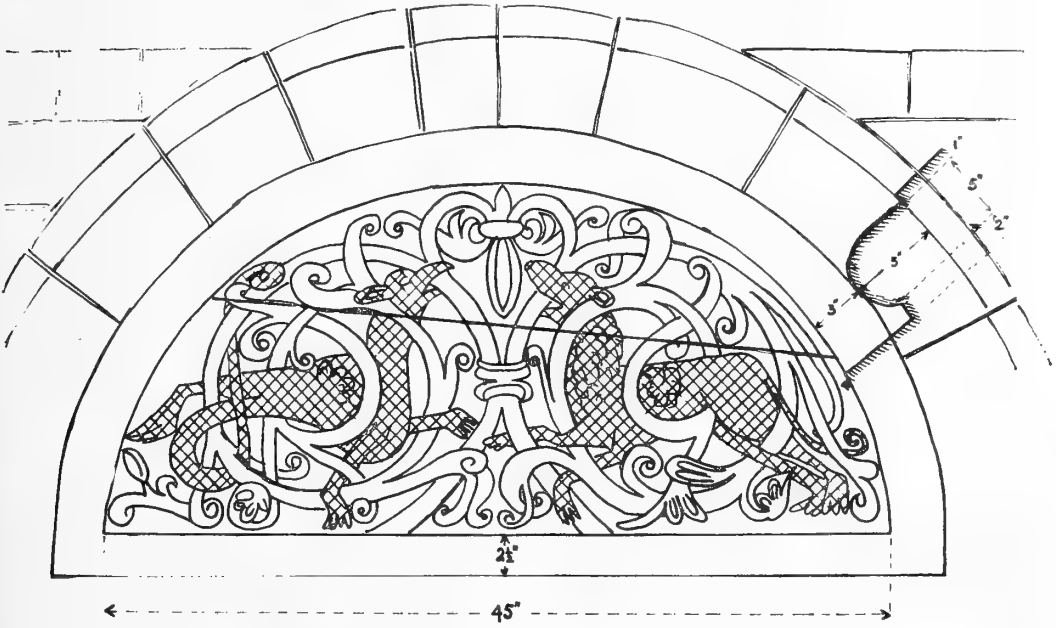

FIG. 2

DETAIL OF THE TYMPANUM AND ARCH

In this drawing the two animals have been cross-hatched to make them more easily distinguishable; the line of fracture or junction across the tympanum is shown; the dimensions are given; and the unusual profile of the arched head of the doorway is shown in dimensioned detail.

FIG. 3

DETAIL OF THE BORDER OF LAMBETH MANUSCRIPT 200

In the original manuscript the border is about $\frac{3}{4}$ in. in total width, and the piece illustrated is about $2\frac{1}{2}$ in. in length horizontally.

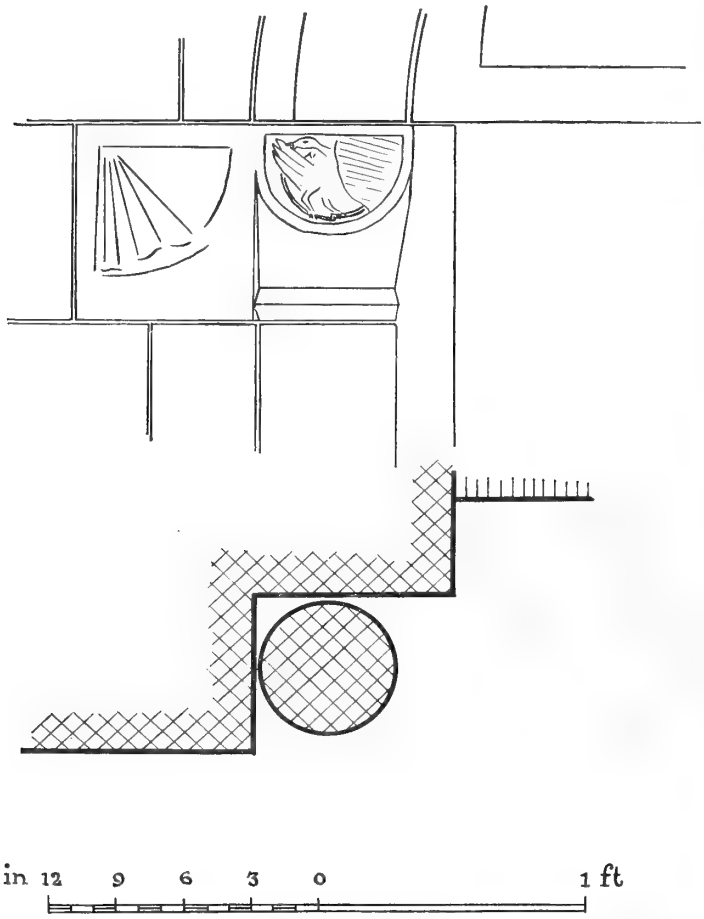

FIG. 4

DETAIL OF THE LEFT (WEST) CAPITAL OF THE DOORWAY

The upper part of the drawing shows how the capital and the top of the door jamb are formed from a single stone. It also shows the intaglio sculpture of a bird on the capital and the fan-like carving on the same stone at the left of the capital. The cross-section in the lower part of the drawing shows how the monolithic angle-shaft is a free-standing cylindrical stone placed in a recess which has an appreciably greater width along the wall-face than its depth at right angles to the wall.

and by verification on the spot. In FIG. 2 the two animals have been cross-hatched to make then stand out more clearly from the foliage. In this figure there is also shown the crack or junction which runs across the face of the tympanum, sloping down slightly from left to right. FIG. 3 is a line drawing to show in directly comparable form to FIG. 1 a corner of folio 69 of the Lambeth Manuscript 200.[4] It should particularly be noted that the animal at the left has four properly formed legs whereas the body of the one next to the right runs off at the back into foliage. It is also interesting to compare the band round the branching of the foliage near the bird's tail with the upper and lower bands that unite the two sets of foliage in the Knook tympanum.

FIG. 2 also shows in hatched outline the profile of the unusual moulding that forms the upper arch of the blocked south door of the church.[5] This profile seems to me quite untypical of Norman workmanship but quite in accordance with Anglo-Saxon practice.

The capitals of the doorway can be seen in PL. IIIa. That on the right is too badly defaced to be distinguishable in detail but that on the left is 7 in. in width with its D-shaped face outlined by a raised fillet of rectangular section. Like the tympanum, the sculpture of the capital seems to have been formed by leaving the flattish pattern and the outlining fillet in relief in front of a slightly sunken background.[6] The pattern shows a bird with its head characteristically turned back so as to bite its own tail feathers. As will be seen in FIG. 4, the capital is formed from the same piece of stone as the topmost stone of the door-jamb, and that stone itself bears a simple ornament in the form of a quadrant of a circle carved in fan-like segments. It is no doubt this carving which caused Mr. Micklethwaite to suggest that the stone was a re-used Anglo-Saxon sundial.[7] I believe there is no substance in that suggestion; and I concur with Sir Alfred Clapham's view that it has no relevance to the dating of the capital and the tympanum to the period A.D. 1000.

In spite of the fact that the church is essentially a Norman fabric, there seems to me no good reason for doubting the Anglo-Saxon workmanship of the south doorway as a whole, including not only the tympanum but also the arch and its jambs and angle-shafts.[8] There are many instances throughout the country of such preservation and re-use of dressed stone facings of doorways and windows in later buildings.

[1] The tympanum is illustrated in C. E. Keyser's *Norman Tympana* (London, 1904), pl. 34. For A. W. Clapham's comparison see his *English Romanesque Architecture before the Conquest* (Oxford, 1930), 136–7.

[2] F. Wormald, *English Drawings of the Tenth and Eleventh Centuries* (London, 1952), 73.

[3] A. W. Clapham, *Archaeol. J.*, 104 (1947), 163.

[4] For a photograph showing a larger area of this folio, see T. D. Kendrick, *Late Saxon and Viking Art* (London, 1949), pl. XXXIII.

[5] The moulding is described by H. M. Taylor and Joan Taylor, *Anglo-Saxon Architecture* (Cambridge, 1965), 365.

[6] This intaglio workmanship seems to give a reliable indication of Anglo-Saxon date rather than Norman. In particular, Sir Alfred Clapham said he knew of no instance of it in 12th century sculpture. See A. W. Clapham, *Antiquity*, XXV (1951), 194–195; or Joan Taylor and H. M. Taylor, *J. Brit. Archaeol. Ass.*, 3rd ser., XXIX (1966), 15–16 and 36–37.

[7] J. T. Micklethwaite, *Reliquary*, n.s., 1 (1887), 231; and A. W. Clapham, *Archaeol. J.*, 104 (1947), 163.

[8] For a contrary opinion see N. Pevsner, *The Buildings of England: Wiltshire* (1963), 252.

THE CHERHILL BARN

by S. E. RIGOLD

THE GREAT BARN AT CHERHILL was demolished in 1956 after many years of fruitless negotiations to find a body ready to preserve it. Two notices of it have already appeared in the *Wiltshire Archaeological Magazine*: a summary description by W. C. Plenderleath in vol. xxiv (1889), 266,[1] and a short account of its latter plight in vol. lii (1948), 265. There is also a description in J. H. Blackford, *The Manor and Village of Cherhill* (1941), 193 ff., incorporating the survey-plan made by H.M. Office of Works in 1939 and a diagram by Sidney Castle, demonstrating the insertion of the secondary aisle-posts. The following account combines the findings of the survey of 1939 with observations made by the author before and during the demolition, and seeks to place this unusual example in the general context of English timber-framed barns.

SITUATION AND HISTORY

The barn stood on the north side of the village street and on the south-east edge of the roughly oval enclosure which contains the unpretentious manor house and, immediately east of it, the church (SU 039704).

Until 1844 the living was a chapelry of Calne. This would have meant that the Greater Tithes would have left the village in bulk; in the Parliamentary valuation of 1649–50 the Greater Tithes alone, providing a prebend at Salisbury, reached the then respectable sum of £70.[2] But, as J. H. Blackford appreciated, this would hardly account for so large a barn if it was built simply as a tithe barn; indeed, it requires special circumstances to account for it, even if it is considered, as it undoubtedly should be, primarily as an appurtenance of a manor, which was neither particularly rich nor extensive. This manor was long held by absentee lords (by the descendants of the Justiciar Geoffrey fitz-Peter, in the 13th century,[3] and, from 1299 until the death of the King-maker, by the Beauchamps of Warwick)[4] and would have been managed by Stewards, such as the John Hamelyn who, in 1326–7, sold 58½ acres of wheat and 11½ acres of barley *en bloc*,[5] over half the total arable acreage, including apparently that of the tenants, who were already paying rents in money and spices rather than dues in kind. Such a barn appears more appropriate on a manor which was already a unit producing its principal for export as well as sending away its corn-tithe. Study of its fabric suggests that the earliest elements in the barn may have dated from the early 14th century—possibly, indeed, from the stewardship of Hamelyn himself—and that, at least as reconstructed, with two passage-bays and threshing-floors, it could have combined under one roof the functions of wheat-barn and barley-barn. That it also contained produce for different destinations was, probably, in medieval eyes, a less important consideration.

In the 19th century it was certainly used exclusively by the tenants of the Manor Farm. In 1868 the then tenant James Eatwell resisted proposals to pull it down and persuaded the steward Thomas White to undertake extensive repairs, using elm as well as oak. Datestones were inserted in the new work, reading '1425' and 'T W 1868'.[6] According to an eye-witness of 1868 a date was found on one of the beams which 'he believed' was 1425, but no trace of this could be found by Mr. Blackford, nor by the author during the demolition, and the report raises some misgiving: if in arabic figures (unlikely but not impossible in 1425) the 4 would have had the not easily recognizable form 8 , while an extended early 16th-century 5 might have been taken for a 4. On the other hand, if the date was in Roman numerals a 'C' could easily have been missed. Though the report must be recorded without prejudice, 1425 seems rather early for the secondary work (for which 1525 would be more acceptable), and too late for the primary build, for which 1325 would be more acceptable, and, incidentally, would fit the office of the good steward Hamelyn. Attempts were made at the time of demolition to secure pieces suitable for dendrochronology, but without success.

In spite of the repairs of 1868 a progressive westward list of the whole timber structure reasserted itself. About the time that the barn was scheduled as an Ancient Monument, in 1929, a number of internal raking shores and iron tie-rods were inserted in an effort to check the list. There were rumours of an offer to dismantle it and take it to America (such a complete unframing could probably have saved it); nevertheless the successive owners did their best to preserve it *in situ*. One of them, J. Millhouse, asked for a report on its condition from H.M. Office of Works in 1938–39, which indicated that a thorough and permanent consolidation would, even then, have cost over £4,000. Any action that could have been taken on this was prevented by the War, but enquiries between 1949 and 1953, by Mr. Millhouse's successor, J. H. Blackford, showed that, with further deterioration and inflation of money, repairs of the sort envisaged in 1939 might have reached £12,000, and that less radical and effective remedies would still have been forbiddingly costly. In the event no body was ready to come forward with the funds required, when the case was compared with that of other important barns in sounder condition. The barn outlived Mr. Blackford, but under his successor, it was finally and reluctantly agreed that it could come down. The writer visited it both before and during the demolition in 1956.

GENERAL DESCRIPTION (PL. IV; FIG. 1)

The axis ran east-west and the lie of the scarfing showed that the barn was assembled from the east. In section the total height and width were about the same, some 35 ft., and the inner post-and-tie structure (see below) was just over 20 ft. in both directions, as though one square were inscribed within the other. The eight bays (plan, FIG. 1, B), which are numbered from the west, were all about 14 ft., centre-to-centre, except no. 3, which was only 12½ ft., giving a total of 110 ft. The slightly lower ridge-line of the two eastern bays was probably a result of the repairs of 1868. There were porches, certainly not original, to the north and south of bays 3 and 6.

As has already been noticed elsewhere,[7] the barn was originally designed with two types of transverse frame—aisled frames, with inset posts supporting the main or arcade

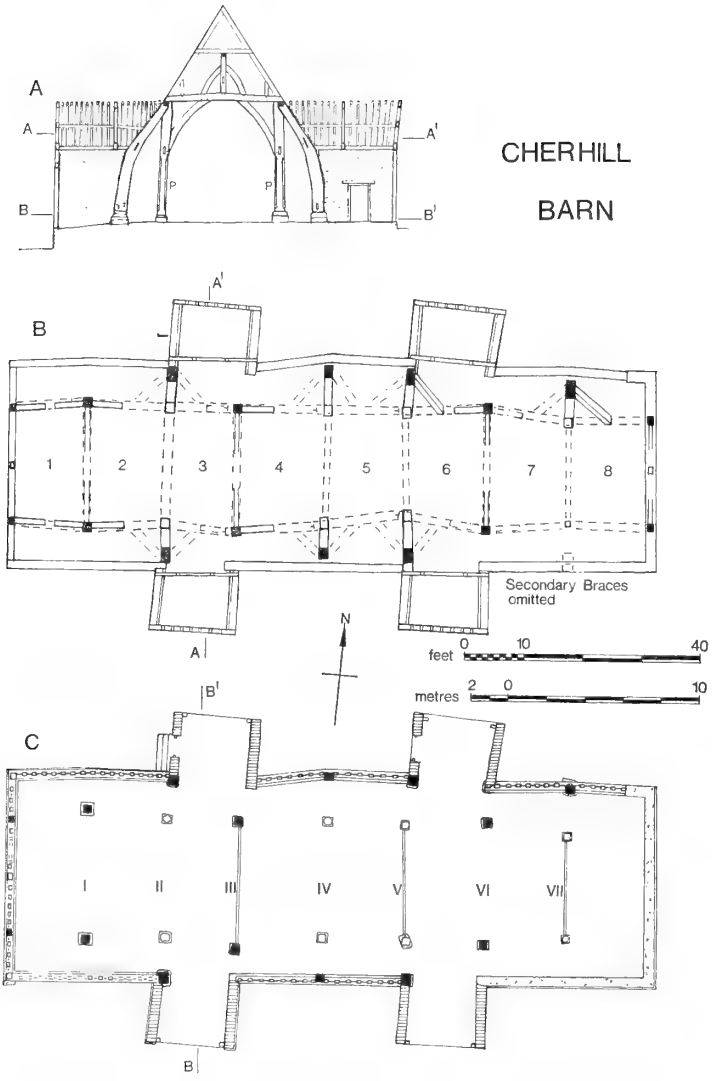

Fig. 1

plates running under the ends of the tie-beams, and 'base-cruck' trusses in which curved blades rose from the line of the aisle-walls and leaned inwards to carry the plates, a type of support here, as normally, both in barns and halls, found in combination with inset aisle-posts, except where there are stone walls to resist its greater thrust.[8] For the original form of these see FIG. 2, C and D, and PL. Va—aisle-post IIIS and base-cruck IIS. At a date that can still be called medieval, but perhaps as much as two centuries after the original building, the base-crucks must have shown signs of yielding to this thrust and extra aisle-posts were inserted under their tips; the braces from the blades to the ties, but not the blades themselves, were removed (FIG. 1, A). Whether the reconstruction of the side-walls was contemporaneous with the insertion of these extra posts cannot be demonstrated

by detail, but there was an organic connection between them and with the placing of the entrances in the final positions, though the porches were certainly later. In its final form the plan was symmetrical, with two aisled bays at either end and two in the centre, separated by bays 3 and 6, which were passage-bays, with porches at both ends and loading platforms at the south, and would have been used as threshing floors. Two passage bays are normal late medieval practice in longer barns. In the original plan the groups of bays separated only by base-crucks each formed an uninterrupted spatial unit, and since the base-crucks occurred in trusses II, IV, V and VII (again numbering from the west—see FIG. 1, C), these units were three—bays 2 and 3, bays 4, 5 and 6, and bays 7 and 8. The end-frames were also of aisled form, and this leaves bay 1 as a separate unit, possibly originally matched by a ninth bay at the east. In any case the compound units formed a symmetrical whole, and the central bay, no. 5, formed, as usual in early barns, however long, a single passage bay. The presence or absence of mortices for the original lateral sole-plates showed that they spanned the two later passage-bays but not bay 5.

Nothing visible externally, and except perhaps for the posts of the end-frames and parts of the ground-wall at the west end, nothing of the outer walls could be ascribed to the original build, but three later phases were evident. The stone ground-wall, of variable height to compensate for the irregularity of the land, was of coursed oolite mixed with broken sarsen and was intact except at the east end and the east section of the south side; it clearly belonged, in large, with the timber wall that it carried throughout this length (including the lowest stage of the west end-wall), which was of stud-and-panel construction, though the planking was missing on the west and south-west. The porches were of coursed oolite to full height and the trusses and gable-frames they carried (FIG. 2, A and B and PLS. IVa, Va) clearly belonged with them and were not relics of pre-existing timber porches. As the porches did not marry with stud-and-panel side-walls and the stud-and-panel of the gable-frames was of different scantling, it seems clear that the porches were added to the passage-bays after these had been formed in their final positions. The oolite of the porches was more evenly coursed than the ground-wall and the masonry was still better in the work of 1868, when the east and south-east walls were carried to eaves-height in stone, a few of the internal members and some of the studs in the south-east section were renewed, the weather-board cladding was added to the west and south-west and the south porch gables and the roof-covering of Cotswold flags completely relaid. The roofs were hipped down to tie-level at both ends, with gablets above the hips.

After this basic overall description and review of the probable sequence and extent of the various phases of construction, the discussion of structural details will follow a 'historical' rather than a 'geographical' order.

THE PRIMARY BUILD (FIG. 2, C, D)

Up to tie-beam level, the aisled frames as preserved, i.e. nos. I, III and VI, together (probably) with the remaining upper part of the east end-frame and the posts only of the west end, comprised (FIG. 2, C) *posts* (P), standing on separate stylobates (i.e. not on a transverse post-plate)[9] and with no sign of a low-set aisle-tie, drawing them to the base of the now missing wall-posts, *tie-beams* (T) (which would be described as heavy collars if taken in relation to the wall-posts), and *transverse arch-braces* (AB). The missing parts were the aisle-ties (AT) and the wall-posts (WP), and the braces or shores (S), which we know from the fortunate survival of one, re-used, aisle-tie, bearing the trench for its brace, to have 'passed' the aisle-tie and supported the main post from the wall-post.[10] See PL. Vb for the mortice of the missing shore to aisle-post IN. The posts were unusually massive—up to 16 in. square, usually with a fine chamfer of just over an inch, and well-centred on their stylobates of square, usually chamfered sarsen blocks (PL. Vd); contrary to the usual later practice, exemplified in the secondary posts, the heads of the posts had no thickening or 'jowl', but the posts were slightly wider than the plates they carried and there was an upstand (FIG. 3, A: X) *behind* the plates, through which a single peg passed to the head-

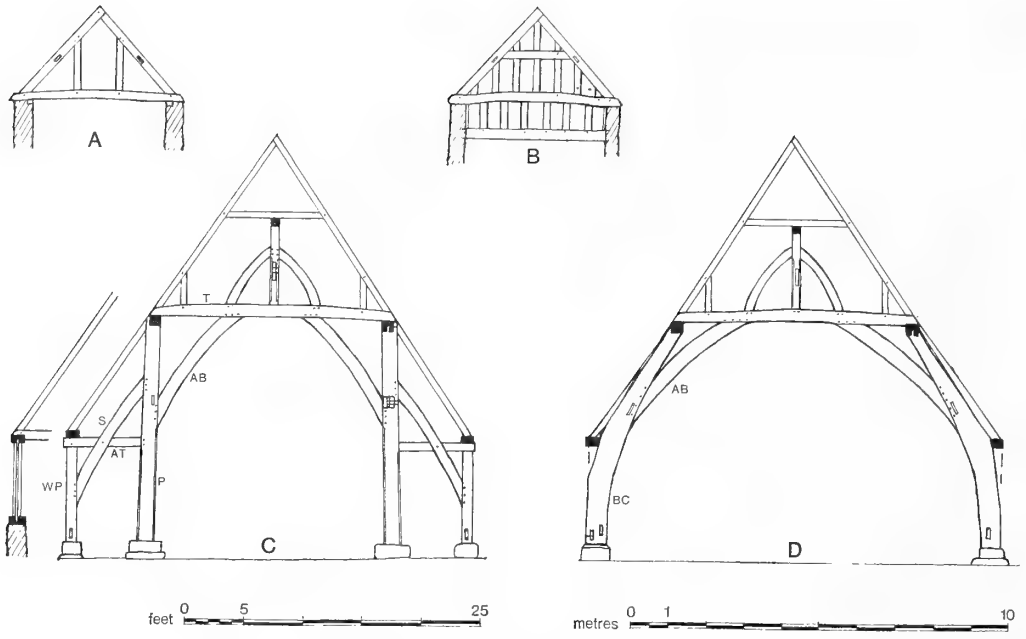

FIG. 2

Cherhill Barn: sections.

tenon of the posts, and the front of the post was flush with the plate. The assembly was thus 'normal', i.e. the ties were superimposed on both posts and plates.[11] The ties, nearly square in section, and the relatively thick (about 6 in.) and curved transverse arch-braces were well centred on the posts. In the aisles, however, the dimensions and the surviving aisle-tie, which bore the mortice for the head-tenon of a wall-post on its underside, show that these parts had the more archaic 'reversed' assembly, usually associated with jowlless posts, in which the plate ran over the tie.[12] The shore was pegged at its intersection with the aisle-tie.

In the base-cruck frames (FIG. 2, D), i.e. II, IV, V and VII, the massive 'blades' (BC) also rested on chamfered stone stylobates, and with the exception of no. IV, which was conspicuously lighter, were about 18 in. square at the base and leaned gently to a height of about 6 ft., where there was a scoring across the face, and thereafter cambered sharply inwards. See PL. IVb (left). There was no sign of the tapering at the foot often found in late crucks, no significant reduction in section until above the seating of the transverse arch-braces, and no sign of a spur-tie holding the cruck-blades to the wall-plate. At the apex the attachment of the arcade plate was comparable to that on the posts—there was an upstanding stop behind the plate and a vertical tenon, cut obliquely to the camber of the blade (FIG. 3, A : Y). The tenons for the transverse arch-braces (AB), all removed for the inserted posts, were about 4 ft. long and secured by four or five pegs.

Although the transverse arch-braces were of deeper and thinner section and curved, the longitudinal braces were square (usually 9 in.) in section and straight, in the fashion of some of the most archaic timber structures. This applies equally to the arcade-braces of the post-trusses, flush with the forward faces of plates, and the canted wind-braces from the shoulders of the cruck-blades to plates, where they were secured by oblique tenons comparable to those on the heads of the blades.[13] The former were best preserved

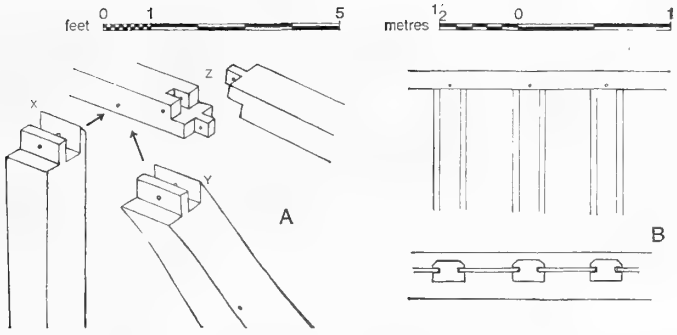

FIG. 3
Cherhill Barn: details.

at the west end; of the latter only two survived, one on truss no. 7 where even the tie had been renewed in 1868. Their position is shown on FIG. 1, B, a plan at eaves level where only original braces are indicated, the lost ones shown by broken lines.

The blades bore lateral mortices near their feet (see FIG. 2, D) and, like them, the lost wall-posts probably also stood on individual stylobates and had similar mortices. This implies that there was originally no continuous external sole-plate, but one pieced up from bay to bay. It is not known how the original wall-cladding was composed, nor indeed how the wall-plate carried over the shoulders of the blades, but it is possible that the later wall-structure reflects some form of vertical planking in its predecessor. A continuous, not panelled, vertical cladding has been found in early barns in Kent.[14]

It is in the straight braces and interrupted sole-plates, passed by the feet of the vertical members, that the archaism of the original structure lay. The scarfing of the original longitudinal members was remarkably advanced. In south-eastern England some form of splayed scarf (i.e. the joining of members end to end, by an oblique cut) is usual in buildings of the 13th and early 14th centuries and this is replaced by a horizontal halving with 'bridled' tenons at the end of either butt, also found in Wessex,[15] where it co-exists with a cruder form, found also in 'cruck contexts',[16] where the cut is almost vertical and has a single ('secret') bridled tenon at the top. At Cherhill both the main plates and the collar-purlin had a horizontally halved scarf with two bridled tenons (FIG. 3, A : Z), but the overlap of the halving was very short, as though approaching the near vertical, unhalved scarf, just described. The scarfing in each case was just to the west of the truss.

Above tie-level the roof was of normal down-braced crown-post and collar-purlin form (FIG. 2, C, D; PL. Vc), of a type rare in Wessex and, when found there, usually in pre-15th-century contexts, but persistent in the south-east. The eastern parts had been partly reconstructed in 1868 and perhaps earlier (this part of the collar-purlin was chamfered and clasped by the crown-post), but on form alone, as well as structural consistency with other primary features it seems that the roof was essentially that of the first build. No side-purlins had ever been inserted. The crown-posts were generally chamfered, and bore deep-set braces to the collar-purlin, and, contrary to south-eastern practice, there were ashlars (PL. Vc, left) from the ties to the couples immediately above them (but of course nowhere else).

SECONDARY FEATURES

The insertion of secondary arcade posts (PL. Va, right) has already been discussed. The posts (FIG. 1, A : P) with distinct, but not prominent, jowls, were generally of lighter scantling than the originals and on smaller stylobates, but had very wide (3 in.) chamfers, with ogee stops below the arch-braces, which were thinner and deeper than the originals

and eccentrically set, i.e. to one side of the post, and in some cases their upper tenons were let into the sides of the existing ties (PL. Vc). The timber side-walls, which consisted of adzed studs and planks set into continuous plates above and below (FIG. 3, B; PLS. IVa, Va, d), without wall-posts at the bay-divisions, were probably contemporaneous and formed, perhaps, the longest run of this type of walling known in England. The 8-inch-wide studs were each pegged to the plate and had a broad ($1\frac{1}{2}$ in.) chamfer externally. The planks were an inch thick and had generally endured very well.[17]

The upper plates of the studded walls doubtless carried over the heads of the four entrances formed at this first alteration. But when the porches were built the plates were cut through and the southern wall developed a list for lack of this continuous support—a needless damage, since the tie-beams of the porches were only a few inches higher than the mutilated plate. The side-walls of the porches were of stone to full height and carried a truss with queen-struts, but no collar, on the inside (FIG. 2, A) and a gable-frame of short studs and panels (FIG. 2, B; PL. IVa, Va), the two joined by butted purlins. None of the double doors was older than the 19th century, and three low rails for winnowing boards remained (PL. IVb).

DATE AND PLACE OF THE BARN

Considered without the porches and the 19th century alterations, Cherhill barn was an all-timber structure, and since base-crucks, at any rate in a timber-walled building, are simply specializations in an aisled structure, Cherhill was perhaps the most westerly of the broad, aisled timber barns whose extensive distribution extends eastwards to Kent and Essex and north-east to the vicinity of Huntingdon and Thetford,[18] but near at hand includes a few in the valleys of east Wiltshire.[19] Immediately to the west of Cherhill the typical medieval form is some single-spanned variation on the cruck theme, often with stone walls, and the occasional aisled stone barn hardly affects the pattern. Cherhill barn belonged essentially with those of eastern Wessex and it is no accident that the jowlless post-heads and shores to the wall-posts have close parallels at Wanborough just west of Guildford.

The distribution of base-crucks is now seen to form a fairly continuous belt from Shropshire to Kent, including certain more westerly examples with stone walls that have little suggestion of a notional aisling and owe more to the example of true crucks.[20] Here again, Cherhill was not out of place, but rather on the south-west fringe of the distribution.

This rather marginal position may account for the persistence of archaic features, the straight square braces, the unrefined feet to the blades and the conception of a building with the weights taken throughout, even in the outer walls, at single points on stylobates. These features must be considered with the fairly mature crown-post trusses, the curved transverse braces and forward-looking, if rather faulty and transitional, scarfing. An early 14th century date for the primary phase would reconcile all these dissonant elements, but it is hard to believe that the archaisms could have persisted to the 15th. For the second phase an early 15th century date is indeed possible—there are cases of the stud-and-panel walling that became so widespread in Wessex for internal screens, even in Devon, by the later 14th century,[21] but used on this scale and taken with the eccentric braces, a date nearer 1500 might seem preferable. The mysterious '1425' must remain an unsolved problem. The persistence of stud-and-panel walling is seen in the gable-

frames of the porches, but it is hard to place these (which constitute the third phase of building), with their collarless queen-struts, much before the end of the 16th century, when the 'Cotswold' pattern of relatively cheap and well finished oolite rubble had given the district its present architectural character. Before this date, as throughout the limestone belt, timber framing had probably been much more in evidence, and thus, in west Wiltshire, Cherhill barn was a notable survival in an area of widespread rebuilding.

[1] In 'Cherhill Gleanings', 258 ff.

[2] J. H. Blackford, *The Manor and Village of Cherhill*, 114.

[3] *Ibid.*, 40 ff., with references.

[4] *Ibid.*, 53 ff.

[5] *Ibid.*, 55.

[6] *Ibid.*, 206.

[7] *Ibid.*, 198–9.

[8] For a recent discussion of base-crucks see F. W. B. Charles, *Medieval Cruck-building*, 35 ff. The combination with aisle-posts is more usual in halls and found as far south-east as Kent and Sussex (R. T. Mason, *Framed Buildings of the Weald*, 21), but is not unknown in barns (cf. W. Horn and F. W. B. Charles on Middle Littleton, Worcs., *J. Soc. Archit. Hist.*, XXV (1966), 221). A continuous base-cruck series is typical of such Cotswold stone barns as Frocester, Stanway, Postlip and Brokenborough. It seems to the present writer that the connection with true crucks is not so obvious as is generally assumed, and that there may be a different origin for the continuous and the alternating use of base-crucks.

[9] Most south-eastern barns have their posts standing on the ends of post-plates; a few later ones in the south-east, and the much earlier barn at Drayton St. Leonard, Oxon., have low-set ties. All the 13th century aisled barns at the Templar site of South Witham, Lincs., had separate stylobates and the posts were perhaps unsecured to the side-walls as at Cherhill.

[10] In Kent (see S. E. Rigold, Some Major Kentish Timber Barns, *Archaeol. Cantiana*, LXXXI (1966), *passim*) the shores rise from the post-plates. In west and central Essex, Herts. and West Surrey, they usually rise from the wall-posts and the aisles are proportionately rather narrower: the latter region seems to have more continuity with Wessex in barn-construction, e.g. jowlless post-heads have not yet been found in Kent.

[11] C. A. Hewett, Structural Carpentry in Medieval Essex, *Medieval Archaeol.*, VI–VII (1962–3), 240 ff.; Rigold, *op. cit.* in note 10, 7.

[12] Hewett, *ut supra*, 246: Rigold, *ut supra*, 9.

[13] A diagnostic case of square-sectioned braces, straight or nearly so, in both planes, those from the base-crucks with oblique tenons, precisely as at Cherhill, is at Great Marlow Old Parsonage, Bucks., with detail indicating the 2nd quarter of the 14th century, *J. Brit. Archaeol. Ass.*, 3rd s., XII (1949), 53. The use of straight braces, though known in earlier structures, persists to this date but cannot be attested much later.

[14] At Frindsbury barn, nr. Rochester; Rigold, *op. cit.* in note 10, 10 and fig. 1, K.

[15] Hewett, *op. cit.* in note 11, 253 ff.; Rigold, *op. cit.* in note 10, 3–5 and fig. 1, A–D. In Kent and Essex a splayed rather than a halved scarf would be expected in combination with early details as found at Cherhill and may point to a western origin for horizontally halved scarfs.

[16] Charles, *op. cit.* in note 8, 5 and fig. 1 A, used in side-purlins. Most of the later (16th century and onwards) aisled barns in east Hants, use it in the main plate.

[17] See note 14. External stud-and-panel walling is hard to find anywhere before the 16th century, e.g. at a house at Penshurst, Kent.

[18] A full distribution is in preparation. The instances at Snarehill and Brettenham, just east of Thetford, and Godmanchester and Old Hurst, Hunts. (see R. C. H. M. *Inventory* under these parishes) are somewhat outliers from the heavy concentration in north-west Essex, south Cambs. and east Herts.

[19] The distribution into Wessex needs fuller coverage, but relatively few are reported from Wilts. by those familiar with the area; there are instances, usually single-aisled and relatively late, at Collingbourne Ducis, Clatford, Gomeldon, Orcheston, Axford, Marlborough (Barton Farm) and Upavon.

[20] See note 8. The distribution map in Mason, *op. cit.* in note 8, is out of date; see comments in Rigold, Fourteenth Century Halls in the East Weald, *Archaeol. Cantiana*, LXXXII (1967), 246–56—a number in Berkshire and the surrounding area link the eastern and western concentrations.

[21] e.g. at Kirkham House, Paignton.

A THIRTEENTH-CENTURY 'STEELYARD' BALANCE FROM HUISH

by HUGH SHORTT

MY THANKS ARE DUE to Mr. Norris Thompson, the excavator of the balance, not only for allowing me to publish it, but also for providing details about the circumstances of its discovery.

'The steelyard weight and balance' he writes, 'were found in 1967 during excavation in the field to the north of the churchyard at Huish. An interim report on this excavation will be found on p. 112 of this volume.

'The weight and three pieces of the balance lay in close proximity on an earthen floor of the southern bay of a two-bayed structure. This was the final floor before the building was destroyed or abandoned and there was no evidence of subsequent building or disturbance. In the same bay and on the same level a 15th-century type iron key was found and next to it a nail on which it probably hung. Within two feet, but below, on an earlier puddled chalk floor, a 14th-century type key was discovered. The two keys, so close to each other, suggest that a door existed close by and that a building stood there over a considerable period. Post-holes beneath the walls indicate earlier buildings.

'The position in which the weight and balance were found suggests that it was intact when last placed there and the condition of the iron shows that it could not have been left exposed over a long period. We may well assume that it was stored in the building in which it was found and on the dating evidence of the key it was probably in use in the 15th century.

'The purpose of the building has not been determined but adjacent structures, yet to be excavated, may throw light on its use.'

The form of unequal-armed balance was well known to the Romans, even in Britain. Late Roman examples were copied by the Arabs and the balances reappear unannounced in 13th century England, inevitably suggesting the possibility that the reintroduction was due to the crusades. Their form and mechanism has remained almost unchanged until modern times. The word steelyard does not refer to the balance itself but to the *Staelhof* or sample-yard of the Merchants of the Hanse which was situated just north of the Thames on the site of Cannon Street station. It is interesting, however, that although 13th century steelyard weights have been found widely distributed in southern England (see maps in *Proc. Dorset Natur. Hist. Archaeol. Soc.*, 81 (1959), 149, by D. F. Renn, and in *Libra*, VI (1967), 14, by Col. R. F. J. Anderson), no example of the balance itself, other than the one from Huish, seems to have been recorded.

Before describing the Huish balance in detail, the basic and unchanged form of this type of balance may be described. It consists of a beam with two fulcrums, either of which may be used according to the weight of the load which is hung by a

hook from the short end of the beam. If the load is very light, the fulcrum slightly further from the load is used; if the load is heavier the other fulcrum may be used, but the balance was then turned over and hung the other way up so that a separate series of gradations appeared on the beam. These gradations along which the weight was moved were marked on the two opposing sides of the beam. The hook from which the load was hung was on a sufficiently long loop to be swung across the short end of the beam when the balance was turned over.

In a modern steelyard balance the beam is flattened at the shorter end, which is pierced by the two fulcrums and the bar from which the load is suspended. In the Huish example (FIGS. 1–4, PL. VI), the beam was made of wood now almost entirely lost except where it was supported by an iron sleeve at the working end. The sleeve (L. 98 mm., W. 8 mm.) consisted of a rolled piece of metal brazed along the junction and at the end where a circular iron plug is fitted. The further end, now somewhat damaged, was ornamented with V-cuts forming five saw-like serrations. The two fulcrums, as well as the bar for the load, pass through the sleeve and the wood. They are 49 mm. long but are strengthened at the extremities by two rectangular iron plates, flanged, for no very clear purpose, at each end. The plates are L. 38 mm., W. 15 mm. and about 1·5 mm. thick. One fulcrum is 9 mm. from the load bar, centre to centre, and the other 22 mm. From the further fulcrum a U-loop, W. 45 mm., L. 38 mm., swung freely and to it was attached a suspension ring, D. 68 mm., T. 5 mm. The nearer fulcrum's U-loop was

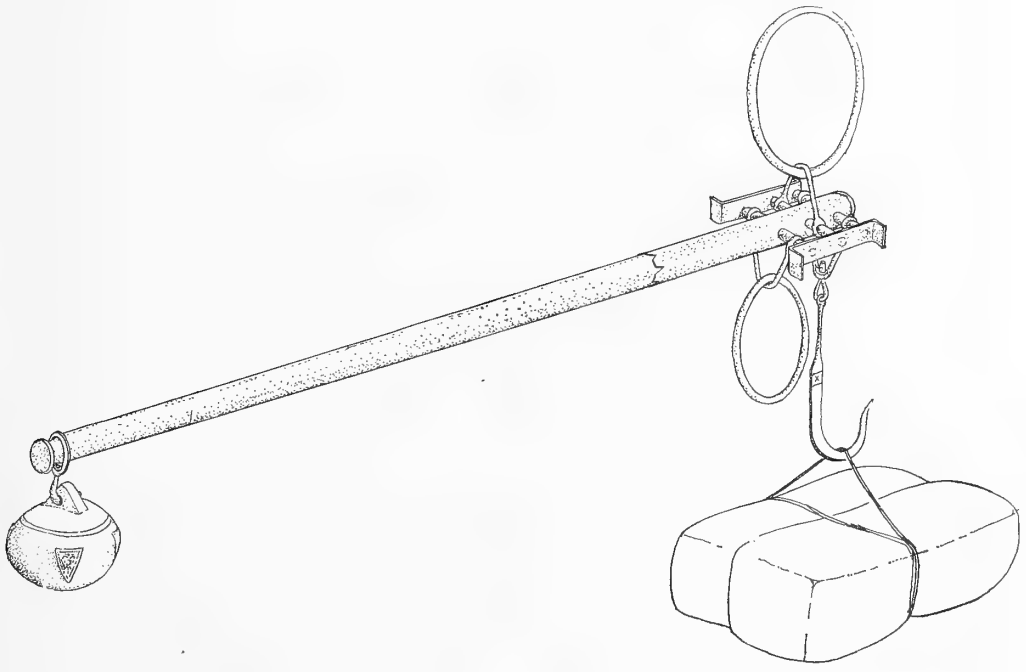

FIG. 1
Reconstruction sketch of the steelyard balance from Huish.

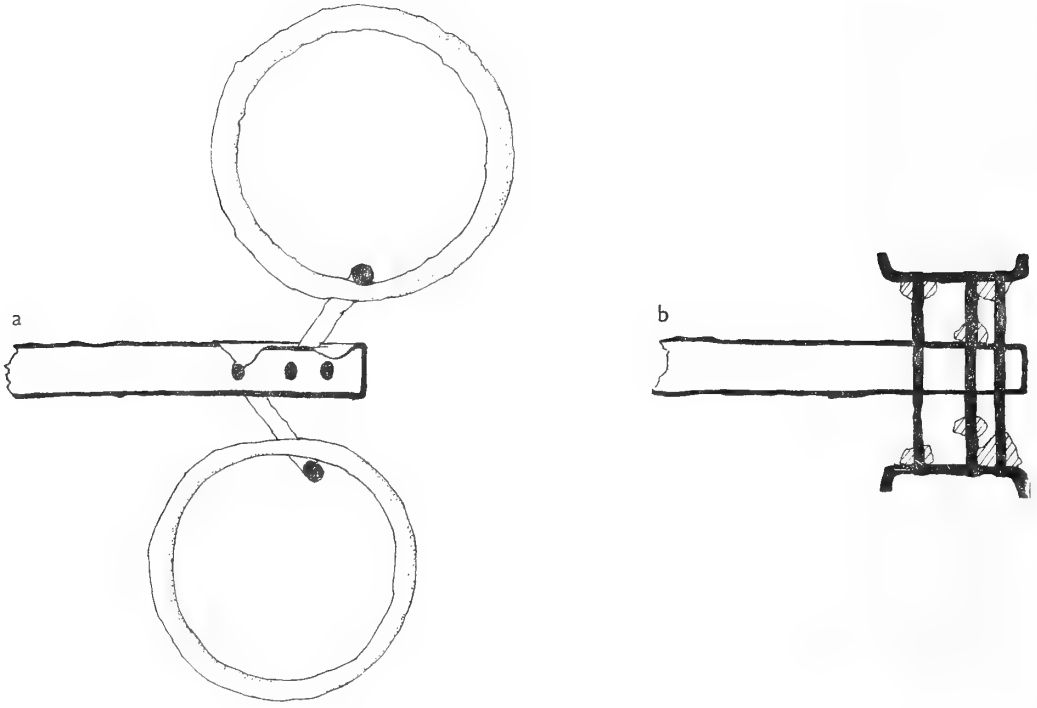

Fig. 2
The steelyard balance from Huish: (a) vertical section; (b) horizontal section. Scale: 1/2.

only 27 mm. in width and 40 mm. long, and its ring D. 77 mm., T. 6 mm. The loop on the load bar was spread the full width of the bar, like the loop on the nearer fulcrum, but its length is 48 mm. The base is flattened and drilled to take a small swivel, overall L. 41 mm., to which is attached the load-bearing hook, L. 124 mm. Unlike many modern balances of this type this is a single hook, of somewhat flimsy manufacture, so that the loads were evidently not very heavy. The upper stem of the hook is of round section, but the U-part is flattened, except for the point, which is bent slightly outwards. There is a trace of ornament on both the flat surfaces, immediately below the round stem. It appears to have been X formed by chisel marks in the iron.

The weight, like the balance, is almost complete as an iron hook for suspension still passes through the hole in the latten tag at the top. This hook, L. 33 mm., has lost its point. Its upper end is attached to a ring (D. 29 mm.) by a swivel. The ring is flattened (as in modern examples) so that the calibrations on the beam could be read more easily. The weight, which is of latten filled with lead, is of the usual spheroid form with a flattened top, from which the stout triangular tag projects, but the weight is of small size, D. 57 mm., H. 60 mm. There is a gash in the base, showing some of the lead, and the present weight with hook and ring

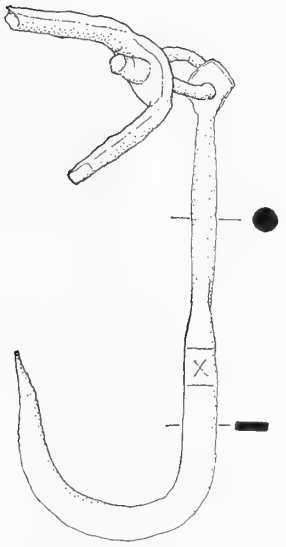

Fig. 3
The steelyard balance from Huish: detached load hook. Scale: 1/2.

is only 2 lb. $1\frac{1}{2}$ oz. The exact weight was of little importance as the calibrations would be added to the beam later by trial and error. On the longitude of the latten tag there are three holes, each about 3 mm. square, two on one side of the weight and one on the other. These appear to have been used for iron pegs to fix the latten casing securely to the lead, as the casing shows signs of splitting slightly above and below the holes. Underneath is a small circular hole (D. 3 mm.) and also a small projection of metal which may be part of another peg or dowel.

The shoulder is ornamented with two parallel lines, rather irregularly engraved, and round the circumference are three shields, one bearing a lion (usually attributed to Poitou); one an eagle displayed, probably biceps (ascribed to the Empire) and on the third is a lion sinister confronting what appears to be a bird-like monster standing on its tail with wings folded, a long neck, a long beak and a crest. These armorials were cast with the weight, though they may have been touched up with a chisel later. This places the weight in the earliest Class I variety. The third shield never seems to have been described correctly, far less attributed. It has been described as two lions combatant or a lion and an eagle combatant, both of which descriptions are clearly incorrect. Yet this shield is often met with and in fact occurs on a similar weight in Salisbury Museum, found in Salisbury. The charge appears to be a lion and griffin combatant, and it occurs on this example with the lion and the displayed eagle, on the Henley-on-Thames example with the same shields, on the Northampton example with the same except that the lion is sinister; and on the Salisbury example with two lion shields, one of them sinister. R. F. J. Anderson (*Libra*, II, No. 2, June, 1963) notes four other examples of steelyard weights found in churchyards, namely from Blewbury, Berks., Claydon and Otley

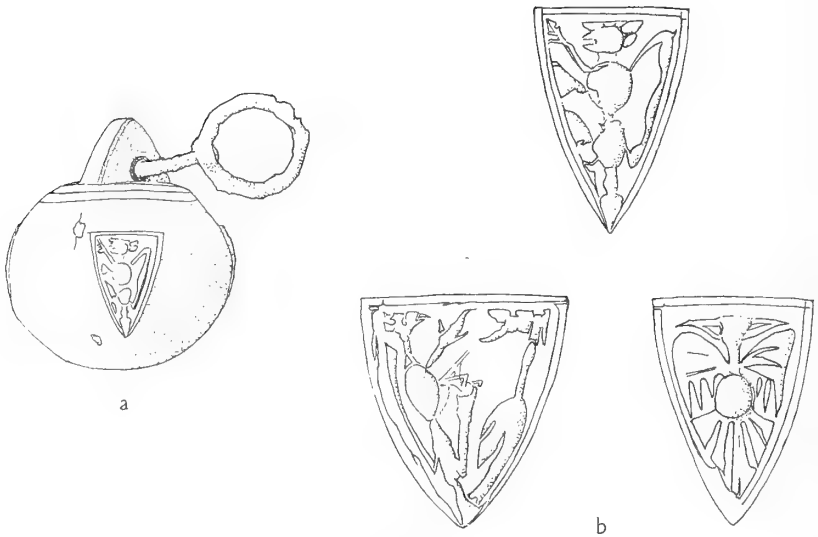

FIG. 4
The steelyard balance from Huish: (a) the weight; (b) shields on the weight. Scales: (a) 1/2; (b) 1/1.

in Suffolk, and Sunbridge in Kent, and remarks that the churchyard was commonly used as the site of the village market.

To return to the heraldry: no satisfactory attribution has been found for the lion and griffin shield. Papworth and Berry give Dancey or Danncey (Gloucestershire) and Tame of Oxford as families with shields of this general pattern, but it seems most improbable that either dates back to the 13th century or would be associated with the other royal or semi-royal shields. It is possible of course that the lion and griffin shield is fictitious.

On heraldic as well as historic grounds, the heraldry of the early steelyard weights has been taken to point to Richard, Earl of Cornwall, as their author. Historically Richard fits the case better than anyone. The second son of King John, he was created Earl of Cornwall and Poitou in 1225 (his arms being a lion crowned, for Poitou, within a bordure besanty for Cornwall, a shield which often appears on these weights). In 1244 he was granted the farming of the new coinage for 12 years, and in 1257 was elected King of the Romans (shield, an eagle displayed). In 1260, at his instance, a charter was granted by Henry III to the German merchants of the Hanse, and in 1272 he died. But if we argue that his interest in the Hanse merchants caused him to make the weights which take their name from the steelyard, their Guildhall, we cannot use the argument that farming the 1244 coinage for 12 years was the cause of his interest in these and other weights and measures, because this appointment came to an end in 1256 and there is no record that it was renewed.

Viewed heraldically it is doubtful whether Richard has any special claim to the weights though his personal shield (Poitou and Cornwall) appears on many of them. The shield with a lion without a bordure has been taken to represent Poitou, but the charge is one of the commonest in heraldry, and in particular was also the shield of

the Marshal Earls of Pembroke. The lion sinister which also occurs could be accidental or ornamental, while the two combatant beasts are most probably the latter. The leopards of England are often represented and can only refer to the King, but the displayed eagle has always been taken for the arms of the Empire, and in this case the arms of Richard, as King of the Romans. This need not be so. In the Chapter House of Salisbury Cathedral were formerly eight shields of arms. They belonged to Henry III, Louis IX of France, Eleanor of Provence, the Prince of Wales, Gilbert de Clare, Roger Bigod, the Earl Marshal, and Peter of Savoy, the Queen's uncle, who when in England used the arms of the Honour of Pevensey, a red eagle displayed on a field of gold. We have then on this and other similar weights a typical collection of royal or near-royal shields, which do not however point clearly to any single issuing authority. They may simply have been intended to give prestige to the weights.

Useful bibliographies on steelyard weights are to be found by E. Curwen in *Sussex Archaeol. Collect.*, lxvii (1926) and by R. F. J. Anderson in *Libra*, II, no. 3 (September, 1963). The subject is also discussed in general by F. G. Skinner in *Weights and Measures* (Science Museum, 1967).

Arithmetical experiment has shown that the Huish balance is unlikely to have weighed loads of more than a hundredweight on the higher range, assuming that the wooden beam was not longer than 2 ft., while on the lower range the maximum load is likely to have been about one third of that weight.

ACKNOWLEDGEMENT

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INVENTORY OF SIR HENRY SHARINGTON

CONTENTS OF LACOCK HOUSE, 1575

by THELMA E. VERNON

THE FOLLOWING INVENTORY is among documents kept at Lacock Abbey. It is the earliest inventory known to have survived, and is of considerable interest for the light it throws on the contents of the rooms, the names they went by, and the offices round Sir William Sharington's lovely stable courtyard. During the 35 years which had passed since Sir William had purchased the dissolved Convent of St. Mary and St. Bernard of Lacock from the Crown, in July 1540, much remodelling had taken place. Fortunately the greater part of the medieval buildings, being in good repair, were preserved, partitioned, ceilings lowered, and all adapted to use as a manor house. On Sir William's death his brother, Henry, carried on the work. Each generation made alterations in the old house to suit themselves, but the major alterations after the Sharingtons were done by John (Ivory) Talbot, the 18th century squire, who demolished genuine Gothic, and some of the Sharington work, to build 'Gothick'. Even so a fair number of the rooms mentioned in the Inventory are easily identified.

As the Inventory is long only a brief mention of the Sharingtons is possible. A full study of the two brothers would be worth while. On Sir William's sudden death in August 1553, his brother, Henry, inherited. Though three times married Sir William left no children. Sir William and Henry Sharington were respectively eldest and third sons of Thomas Sharington, Esquire, of Sharington, East Dereham, Norfolk, and Elizabeth, his wife, daughter of William Pyrton, Esquire, of Little Bentley, Essex. They were shrewd, cultured East Anglians, coming of small landed gentry, and in the case of Sir William, with a long background of Court service under Henry VIII and Edward VI. A detailed pedigree is in the manuscript 'Visitation of Wilts, 1565', in the Society's Library. This gives also a drawing of their arms, and the scorpion crest.

Sir Henry's reign at Lacock was nearly 28 years, his death being in January 1581, when he was in his late seventies. Like his brother he served as Sheriff of Wiltshire, 1566–67. In September, 1574, 14 months before the Inventory was written, Queen Elizabeth I, according to the Walsingham Diaries, on progress from Bristol and Wilton House, stopped some hours at Lacock House, as it was then called, and was entertained by Henry Sharington and his family and friends. It was on that great day that he received knighthood. Sir Henry had married Anne Paget (buried at Lacock, 1607), a daughter of Alderman Robert Paget of London, whose widow (and her mother) had been Sir William Sharington's third wife. Of Anne and

Henry's four children, William was baptized at Lacock in May, 1563, but was buried there in August following. The eldest daughter, Ursula, made a good match as first wife of Thomas, eldest son of the statesman, Sir Ralph Sadleir, of Standon, Hertfordshire, but she died in 1576, leaving no child. Thus the two younger daughters, Grace and Olive, became co-heiresses of their father's manors, considerable other property, and the flocks of sheep on the Wiltshire downs. Grace was married to Sir Anthony Mildmay of Apethorpe, Northamptonshire, and became the ancestress of the Earls of Westmorland. Olive among other inheritances eventually succeeded to the Manor of Lacock. She was married first in September 1574, in Lacock Church, to John Talbot, Esquire, of the Manor of Salwarpe, Worcestershire, a descendant of the 2nd Earl of Shrewsbury. He died before his time in December 1581. Three years later she married Sir Robert Stapilton of Wighill in Yorkshire on the recommendation of the Queen. By both these husbands she had children, her eldest Talbot son being christened Sharington. Sir Robert died in 1606, but Dame Olive lived on until 1646, one of the great ladies of Lacock, being eventually succeeded at Lacock House by a grandson, Sharington Talbot II.

This Inventory is not a full Probate Inventory, for it does not deal with personal apparel and other matters usually included, but it was intended for probate purposes for it is carefully stitched to a long and interesting last Will and Testament, dated 12th November 1575, endorsed in a contemporary hand 'A draught off a wyll for S^{r}. Hen. Sharington, but never sealed nor perfected, 17th [*sic*] Nov. 1575'. Was it laid on one side after the unexpected death of 'my daughter Sadleir' the following year? After her mother's time, she was to have the contents of the house for life. It is a curious fact that Sir Henry's final Will was a short nuncupative one (P.C.C. 44 Darcy -1581-). It caused turmoil in the family; Lady Mildmay went to law. The quarrels between the co-heiresses continued for many years.

Both the Inventory and the unexecuted Will are written on the finest vellum in an elegant secretary hand. The Inventory is comprised of six leaves, 20 by 10 inches, written on one side only until the sixth leaf. The Plate and Hangings are set out exactly as in the original, but to save space the items in the individual rooms are here blocked together with prices against each, the total sum for each room then being run to the column and shown within square brackets. Figures in the original are in roman and have been altered to arabic. The Inventory was never totalled, a few calculations in the Plate and Hangings are slightly out and are indicated by [*sic*]. Including these small defects the Inventory adds up to £1,047. 12s. 11d., a formidable figure for the period. The Wardrobe Chamber was stuffed with embroidered chairs and cushions, silk quilts, a large Turkey carpet, &c., all of which only came out, presumably, on special occasions. The largest rooms and most fully furnished were the Long Stone Chamber (Stone Gallery), Mr. Talbot's Chamber, Lady Thynne's Chamber, The Duke's Chamber [? Somerset or Northumberland], Sir Henry's Chamber, 'My Ladies Chamber', and 'Mr. Mildmaies Chamber'. Sir William and Sir John Thynne of Longleat had had a common interest in architecture: 'George his Chamber' may well refer to a valued servant, George Pigge, whose burial at Lacock is entered, 22nd November 1584: 'George Pigge servant to the Right Worshipfull Ladie Anne Sharington.' There were several

gentlemen of the household, Mr. Danvers (a well known Wiltshire name), Mr. Bishopp, and Mr. Levers, who had a 'counting tyll' in his room. The Porter's Lodge (two-storeyed) would have been in the Gatehouse, well shown in the Dingley drawing of 1684, but demolished in the 18th century.

A few articles are still at the Abbey, as it was called from the late 18th century. These include the pestle and mortar in the Hall, and the 'greate potte' in the kitchen at the high price of £6. 13s. 4d. must be no other than the huge Nuns' Cauldron of 1500 made in Mechlin. It is bell-metal, but 'brasse' could mean a number of metals.

AN INVENTORY of my plate, hangings and other furnyture and implements of householde as followethe:

	£	s	d	
Imprimis a neste of gylte bowles wth a cover wayinge 68¾ oz at 6/8d the oz	£22	18	4	
Item three greate costed[1] salts all gylte with no covers wayinge 74½oz at 5/4 the oz	19	17	4	
,, one little trensher sawlte wayinge 4 oz. at 6/– the oz	1	4	–	
,, one rounde standinge sawlte with a cover garnisshed wth cristall and agat wayinge 35 oz at 6/8d the oz	12	–	–	[*sic*]
,, one standinge Cuppe wth a cover all gilte wayinge 46 oz at 6/– the oz	13	16	–	
,, one guilte tanker wth a cov[er] garnisshed wth scorpions wayinge 28¼ oz at 6/– the oz	8	9	3	[*sic*]
,, 2 little beare cuppes wth on[e] cover wayinge 23 oz at 5/6d the ounce	6	5	6	[*sic*]
,, one little yoare[2] all gylte wayinge 8¾ oz at 6/– the oz	2	12	6	
,, three gilte goblets wth no cov[ers] wayinge 54½ oz at 5/4d th[e] onc.	14	8	–	[*sic*]
Percell Gylte./				
Item a neste of cuppes being sixe in number and p[er]cell gilte wayinge 58½ oz at 5/4d the oz	15	9	4	[*sic*]
,, a nest of bowles p[er]cell gilte wth a cov[er] wayinge 103 oz at 5/– the oz	25	15	–	
,, 22 spones of one sorte of knappes wayinge together, one being broken, 44½oz at 5/– the onc'	11	2	6	
,, one basen and a yore[2] p[ar]cell gilte wayinge 78½oz at 5/– ye oz	19	12	6	
All white/.				
Item 2 litle bowles wth covers wayinge 30½oz at 5/– the oz	7	11	6	[*sic*]
,, one chaffinge dishe wayinge 35 oz at 5/– the oz	8	15	–	
,, 6 disshes wayinge 106½oz at 5/– the oz	26	12	6	
,, 12 trensher plats wayinge 107¾ oz at 5/– the oz	26	18	9	
,, one bason and a yore all white wayinge 108 oz at 6/– the oz	32	8	–	

The hangings and other clothes of Arrys and Tapistrie

The greate wodroppe

Imprimis one pece of hanginge of water flowers conteyning 25 sticks at 4/– a sticke[3]	5	–	–	

It[e]m	one pece of fyne vardor[4] conteyninge 25 sticks at 4/6d the sticke-	5	12	6	
„	one fyne Counterpointe[5] of flowers and birds conteyning 25 sticks at 5/– the sticke	6	5	–	
„	one litle pece of hanginge of Imagerie conteyninge 10 sticks at 4/– the sticke	2	–	–	
„	3 course peces of Imagerie for hanginge wch did serve my Ladies Chamber conteyning 50 sticks at 2/– the sticke	5	–	–	

The Dukes Chamber

Item	fower peces of hangings of fyne varder of water flowers conteyning 95 sticks at 5/– the sticke	23	15	–	
„	one fyne counterpointe conteyning 22 sticks at 4/6d the sticke	5	–	–	[*sic*]
„	one Carpet of Water flowers conteyning 9 sticks at 3/4d the sticke	1	10	–	
„	one litle coveringe of water flowers in the Inner Chamber conteyning 9 sticks at 3/– the sticke	1	7	–	

The Ladye Thinnes Chamber

Item	fower peeces of Imagerie conteyninge 103 sticks at 5/6d ye sticke	28	–	–	[*sic*]
„	one fyne Counterpointe of water flowers conteyninge 14 sticks at 4/– a sticke	2	16	–	
„	one coverled of Parke Worke in the Inner Chamber conteyning 10 sticks at 1/8d the sticke		16	8	

The longe stone chamber

Item	one fyne Counterpointe of water Flowers conteyninge 14 sticks at 4/– a sticke	2	16	–	
„	4 peeces of hangings of water flowers bordered wth Antyke conteyninge 100 sticks at 4/– the sticke	20	–	–	

The Dark stone chamber

Item	five hangings of flowers and byrds withe antique borders conteyning 117 sticks at 4/– the sticke	23	8	–	
„	a coveringe of Tapestrye in the Inner chamber with Connyes and birds conteyninge 12 sticks at 1/6d the sticke		18	–	

The Parler

Item	2 peeces of hangings of the storie of Sampson conteyninge 55 sticks at 2/– the sticke	5	10	–	
„	4 other peeces of hangings one of Imagerie and three of byrds and beasts conteyninge 72 sticks at 2/– the sticke	7	4	–	
„	3 other little peces conteyning 12 sticks at 1/– the sticke		12	–	

[End of first leaf]

The Greate Chamber

Item	syxe peces of hangings five of the storie of Jepthae[6] conteyninge seven score sticks & 17 at 5/– the sticke	39	7	6	[*sic*]
„	one lytle pece conteyninge 10 sticks at 5/– the sticke	2	10	–	

The Drawinge Chamber

Item a Counterpointe of water flowers conteyninge 14 sticks at 3/4d the sticke 2 6 8

„ a Counterpointe of Parke work conteyninge 12 sticks at 1/6d a sticke 18 –

The Quenes Chamber

Item one coveringe of Imagerie conteyning 9 sticks at 1/4d the sticke 12 –

Sr. Henrie Sharingtons Chamber/.

Item a coverled of Parke worke conteyninge 13 sticks at 2/– the sticke 1 6 –

„ one coveringe in the inner chamber conteyninge 9 sticks at 1/– a sticke 9 –

„ one other coveringe conteyninge 12 sticks at 1/4d the sticke 16 –

The hall

Item 3 peces of Tapestrye conteyninge 62 sticks at 1/4d the sticke 4 8 4 [*sic*]

Mr. Mildemaies Chamber

Item a coverled of vardor conteyninge 12 sticks at 1/6d the sticke 18 –

The furnyture and implemts. of household as followeth/.

The Turret chamber

Item one ioyned bedsted 6/8d, one matte 1/–, one fetherbed £2., one other fetherbed £1. 13. 4d., one fether boulster 10/–, 2 Downe pillowes 6/–, 2 fustyonts £1. 6, Spanishe Rugge 13/4d, one Canapie red Damaske £1. 13. 4d, one Spanishe chayre 10/–, one ioyned Cupboard 6/8d, one sydeboarde wth his frame 2/–, one payer Andyrons 5/–, one curtine saw 3/4d [£9 16 8]

The Inn[er] chamber to the same

Item a bourded bedstede 2/–, one mattresse 5/–, one fetherbedde £1. 13. 4d, one boulster to the same 8/–, one blanked[7] 5/– [£2 13 4]

The Grene chamber

Item one Joyned Bedsted 5/–, one matte 1/–, one fether bedde £3., one pallot boulster 16/–, one pallet pillow 6/8d, one Spanishe Rugge 15/–, one Canapie grene Damaske £1. 13. 4d, one paire Andirons 4/–, one Joyned Cupbord 5/– [£7. 6 –]

The longe stone Chamber

Item one bedstede 10/–, one matte 8d, one pallyat fetherbed £4., one boulster to the same £1., 2 Downe pillowes 13/4d, one lynian quilte 16/–, one sparver[8] of capline[9] wth curtines of taffata £15., one cupborde 4/–, one Joyned chaire 3/–, one paire of Andyrons 4/–

[End of second leaf]

one Curtine Dornixe[10] wth his Iron Rod 6/–, one Curtine red saie wth his Rodde 2/6d [£22 19 6]

Mr. Taulbots Chamber

Item one ioyned bedsted 6/8d, one matte 8d., one matresse 4/–, one fetherbed £2. 10., one boulster to the same 10/–, 2 pillowes 10/–, one lynien quilte 6/8d, one paire fustians 16/–, one Spanishe Rugge 10/–, one ioyned cupboard 5/–, one chaire 1/–, one sparver of carphoe[11] wth curtens of taffata £12., one curtin of buckram wth his rod 3/4d, one paire Andyrons and a fyre pañ 6/– [£18. 9. 4]

The Inner Chamber to the same/.

Item one ioyned bedstede 5/–, one lytle fetherbed 8/4d., one other fetherbed £1. 6. 8d., one boulster 8/–, one Rugge 10/–, one borde wth tressells 3/– [£3. 1. –]

The Ladie Thynnes Chamber

Item one bedsted wainscotte 8/–, one matresse 6/8d., one palliat fetherbed £5., one boulster to the same £1. 3. 4d., 2 pillowes of Downe 5/–, one lynien quilte 10/–, one paier of fustians 15/–, one Sparver of Carphoe with Curtens of taffata £12., one Curtin of Dornixe wth his Rod 6/8d., one Cupborde of Waynscot 3/–, one paire of Andirons 3/4d., one fyer pañ 3/– [£21. 14. –]

The Inn[er] Chamber to the same

Item one boreded bedsted 1/4d., one matte 8d., one fetherbed £1. 10., one boulster 10/–, one Blanked 5/–, one bourde wth 2 Trestells 2/– [£2. 9 –]

The Dukes chamber/.

Item one bedsted 10/–, one matresse 6/8d, one fetherbed £4., one other pallot bed £5., one boulster to the same £1. 6. 8d., one hollande quilte £1., one pair of fustians 13/4d, 3 downe pillowes 8/–, one sparver of carphoe with sarsenet curtens £10., one Cupbord ioyned 5/–, one square boarde 13/4d, one paire of Andyrons 4/–, one paire of Tongs and fyer pan 10/2d, one paire bellowes 1/4d [£24. 18. 6]

The Inn[er] Chamber/.

Item one bedstede 5/–, one matte 6d., one fether bedde £1. 13. 4d, one boulster to the same 10/–, one Rugge 3/–, one Curtin saie and his Rode 6/– [£2. 17. 10]

The Dyninge Chamber/.

Item one longe Table and 3 tressells £1., one square table and his frame 10/–, one Cupborde of waynscotte 8/–, one brusshinge boarde and 2 tressells 2/6d., 5 chaires of walnut Tree £1. 5., 20 stooles [of] walnut Tree £2., one paire of Greate Andyrons £1 [£6 5 6]

The Parlour./

Item one ioyned Table of walnut Tree £4., one Cupborde 4/–, one longe forme 2/–, 5 shorter formes 6/4d., 5 Walnut tree chaires £1., one paire of Iron Andirons £1. 6. 8d., one fyer forke and tongs 5/–, one Curtin and his Rodde 2/– [£7. 6 –]

Hande his chamber/.

Item one bourded bedsted 3/4d., one feather bedde and boulster £1., one Rugge and blanckette 4/– [£1. 7. 4]

Sr. Henrie Sharington his chamber/.

Item one bedsted £1., one matte 1/–, one feather bedde and boulster £2. 10., one holland quilte 13/4d., 2 fustians 16/–, 2 Spanishe Ruggs 13/4d., 2 pillowes of Downe 6/–, the valens and curtens £6, one feild Bedsted £1, one Bed of Downe £1. 10,

[End of third leaf]

2 Lynien quiltes and 2 boulster quilts £1, 2 boulsters of Downe and one pillowe 13/4d., one greate holland quilte 13/4d., one paire of blanckets 10/–, one canapie and coveringe Red clothe £2. 10, one square table 6/8d., one ioyned cupborde 5/–, one cane Spanishe chaire 4/–, one bourde of chestes for the feilde bedde 3/4d., one fyer panne 1/–, 2 Curtins wth their Rodds 5/– [£21. 1. 4]

The Inn[er] chamber

Item one ioyned Bedstede 5/–, one Flocke bed and matresse 10/–, one Fether bed and boulster £1. 6. 8d., one Rugge 6/8d., one bed and boulster £1. 10., 2 greate pillowes 13/4d. [£4. 11. 8]

The Garret

Item 2 ioyned bedsteds 10/–, one matte 6d., one fether bedde and boulster £1. 6. 8d., one paire blancketts 8/–, one table & ioyned trestell 6/4d. [£2. 11. 6]

The hall

Item on[e] ioyned Table wth 3 leaves £2. 6. 8d., one square table [of] walnut tree 8/–, one longe table wth a frame 15/–, 3 longe fourmes 6/–, one ioyned cupborde 5/–, 2 bourded Cupbords 3/4d., one plancke, 2 tressells and a fourme 2/6d., one fyre forke 2/6d. [£4. 9. –]

The kechinge

Item 2 paires Iron Racks £2.; 26 broches £2; 4 potte hangers 2 Iron barres & 4 Joynes £1. 10; 3 Andirons 3/4d, 6 Drypping pannes 10/–, 5 kettells £1; 6 brasse potts £2. 10., 5 possenets[12] of brasse £1; 4 skyllets of Latin[13] 10/–, one chafer of Brasse 3/–, one greate brasse potte £6. 13. 4d., one brass morter and pestell £1, one musterd mill 5/–, one borde 2 trestells & three formes 6/8d, 2 powderinge[14] stones £3. [£22. 11. 4]

The Brewehouse

Item one fornace of copper £20., 3 greate fats[15] £12., 2 colebaks £2. 10. [£34. 10. –]

John Hobbes Chamber

Item one bedsted 1/4d., one case for a flocke bed 1/8d., one bed and a boulster £1. 6. 8d., 3 ruggs 13/4d. [£2. 3. –]

The Bakehouse

Item one table and two trestells 6/8d., one beame and skales £2., one great cawdron £1. 6. 8d., one Trevet 2/–, one brasse pan 3/–, 2 ladinge ketels 3/–, 2 planks wth 2 tressells and one bracke £1. [£5. 1. 4]

The Malte lofte

Item 400 weights of leade £1. 13. 4d., one Iron beame and skales 10/–, one skeyne for corne 6/8d, one Tente cover £5., one olde Drume 10/–, one Busshel[16] 2/–, one candell presse & a byn for otemele £2. 10., fower racks for chese 6/8d., 4 plancks wth trestells 6/8d., 2 stone traughes 10/–, 2 olde ketells 10/–, 3 trevets 3/–; 3 litle plancks 2/– [£12. 10. 4]

[End of fourth leaf]

Thomas Thwaits chamber/.

Item one bourded Bedstede 2/–, one quilte and a matte 3/4d., one fether bed 2 boulsters and a pillowe £1. 13. 4d., one blanked and a rugge 13/4d., one plancke and 2 fourmes 2/6. [£2. 14. 6]

The p[ar]sonage Mr. Mildemaies chamber./

Item one ioyned bedstede £1, one matte and matresse 6/–, one fether bed and boulster £3. 6. 8d., 2 pillowes of Downe 10/–, one holland quilte 13/4d., one rugge and 2 blanckets £1., one tester of striped Satten & curtens of Sarcenet £6., one ioyned cupborde 3/4d., hanginges of greene clothe £2, one ioyned Bedsted and matte 5/–, one olde matresse 2/–, one Bed and boulster £1. 10., one Rugge and blanket £1. 6., one coveringe of Dornexe 3/4d., hangings of Dornex £2., Andirons and Bellows 6/–, one borde two tressells 2/– [£20. 13. 8]

George his chamber the hawle

Item one ioyned bedsted 13/4d., one Bed and boulster £3. 6. 8d., 2 pillowes 6/8d., 2 blanckets and one rugge £1. 6. 8d., one ioyned cupboarde 10/–, one Brusshinge bourde 2/6d [£6. 5. 10]

The chamber ov[er] the still house

Item one ioyned bedstede and matte 5/–, one bed and boulster £1. 10.; 2 Ruggs 16/–, one plancke bourde 2/– [£2. 13. –]

The chamber und[er] Mr. Mildmaies chamber/.

Item one standinge bedstede 5/–, one fether bed and a boulster £1. 13. 4d., 2 course pillowes 4/–, one blancket, one Rugge 13/4d., one plancke bourde, a forme & a frame 3/4d. [£2. 19. –]

The Wardroppe

Item one Bedsted of wainscotte 10/–, one pallet bedde £5., one other fether bed £4., one lesser fetherbed £3. 5. 8d., one boulster for the same £1; 3 pallet pillowes £1.; 3 holland quilts £1. 10.; 3 fustyans of five bredthes £1. 10.; 5 fustyans of 4 breadthes £2., one Bed & boulster tyke redie sowed £2. 13. 4d., one large tycke £1. 16. 8d., one other tyke £1. 13. 4d., 5 bolster tyks £1. 13. 4d., 16 Duble yards of Bed-tyke in 2 peces £5., one other pece conteyning $5\frac{3}{4}$ yards £1. 13. 4d., one chaire of skarlet imbrodered £2. 6. 8d., one other chaire imbrodered £1. 6. 8d., one chaire crimesine satin imbrodered wth blacke veallet 13/4d., one chaire nedle worke £1., one spanishe chaire crymosin veallet £1. 6. 8d., 2 Spanishe chaires greene veallet £2., one chaire purple vellet £1. 3. 4d., one silke

cusshen drepte with Silver £2., one cusshen clothe golde 10/–; 2 longe cusshens silver and vellet 16/–, 2 longe cusshens of blacke and white satten £1. 13. 4d., one longe cusshen nedleworke 10/–, one owlde cusshen 4/–; 2 longe greene cusshens fustenaper 16/–, 12 square creull cusshens £4.; 4 square cusshens Tente worke £2.; 6 oulde cusshens £1. 10.; 6 blewe cusshens imbrodered £1. 10.; 6 of the same unmade uppe £1., 6 newe cusshens Tapestrie £2., 4 cusshens of Turkey worke 10/–, 2 Turkey carpets £2., 3 stooles covered wth russette vellet £1.; 2 other stoles cov[er]ed wth nedle worke 12/–, one stole covered wth silke nedle worke 12/–, [one] stoole covered with figured vellet 3/4d.; 3 lowe stooles covered with vellet 5/–, 2 stooles covered wth churche worke 2/8d.,

[End of fifth leaf]

2 stoles covered wth cruell 4/–, 2 Cusshens churche worke £1.; 2 stoles uncov[er]ed 2/–; 6 silke quilts of changeable colours £45.; 4 grene Cusshens clothes fustynaps 10/–, one large Turkey carpet £20., one lesser [carpet] £6. 14. 4d., one grene carpet conteyning 7 yardes £2. 6. 8d., 3 carpets blewe clothe square £1.; 2 blewe cupborde clothes 6/8d., one cupboard clothe calico 2/–; 2 peces of grene clothe £1. 6. 8d., one hanging grene clothe for hawle £2.; 6 greate Dannske[17] chests £12.; 3 lesser cypers[18] chests £4.; 2 little bourded chests 10/–; one Dannske table wth 2 leaves £2; 3 plancks wth 2 trestells 8/–, one Flanders Iron cheste £12.; 3 bourds, 2 tressells 2/–, one Beares hide £1. 10.; 2 cloth sacks of Leather £1. 4., one Red Waggan clothe £1. 10., One blewe Sumpter clothe £1. 10., one Tester of churche worke £2., one close stoole cov[er]ed with blacke Damaske 3/4d. one feilde bedsted wth canapie curtens & coveringe of grene clothe £10. [£197. 6. 4]

My Ladies chamber/.

Item one joyned bedsted 13/4d., one feather bed and 2 boulsters £3., one bed of downe and his boulster £4., 2 pillowes of downe 5/–, one paire of fustians 15/–, one canapie and curtens of blew clothe 10/–, 4 cloths £1. 10., one ioyned cupborde 6/8d., hangings of Dornex £2., one chaire of yeelowe vellet 10/–, 3 cloths & one square bourde £2., one folding bourd & a round bourde 10/–, one paire bellowes tongs & fyer pañ 3/4d. [£16. 3. 4]

The Nurcerie/.

Item one ioyned & a bourde Bedstedes 5/–; 2 fether bedds one pillowe & flocke boulster £3. 6. 8d., one blancket 3/4d., 7 chests £2. [£5. 15. –]

The brusshinge chamber/.

Item 4 chests £3., one bourde to brushe on 2/– [£3. 2. –]

The owlde Nurcerie/.

Item one gilte bedsted 10/–, 2 feather bedds a boulster & one pillowe £3.; 2 Ruggs 10/–; 2 matts 1/–; one bed & boulster £1. 6. 8d., 2 Ruggs 10/–, one teaster & curtens of silke £1., one coveringe Dornexe 2/–, one tongs and fyer pañ 1/4d. [£7. 1. –]

The hall in the Whytehouse[19]

Item one Joyned bedsted and a matte 6/–; one fether bed a boulster & a flocke boulster £1. 6. 8d., one Rugge one blanckett 13/4d. [£2. 6. –]

The chamber under Mr. Danvers chamber/.

Item one bourded bedsted 1/4d, 2 fether bedds & a boulster £2. 10., one rugge and blanket £1., and 2 plancke bourds 3/– [£3. 14. 4]

Mr. Danvers chamber/.

Item one bourded bedstede 1/–; one fether bedde 2 boulsters £1. 13. 4d., one Rugge & one blanket 13/4d., 2 plancke bords & 3 frames 3/4d. [£2. 11. –]

Mr. Bishopps chamber

Item one bourded bedsted 1/–, one fether bed, a boulster £1. 13. 4d., one rugge 4/–, one coverlet 5/–, 2 bourds & a frame 1/4d. [£2. 4. 8]

The gardyners chamb[*er*]

Item a bourded bedsted 1/–, one flocke bed & a fether boulster 12/–; 2 Ruggs 6/8d. [19. 8]

[End of the sixth leaf; the last part of the Inventory is written on the back]

The armorie

Item 20 Calivers wth their Morrens & furnyture £13. 6. 8d., 30 Blacke Billes £2. 10., 12 Skulles 10/–; 2 Plancks 4/– [£16. 10. 8]

Mr. Levers chamber

Item 1 ioyned bedstede 8/–, one flockebed 6/8d., one fetherbed and boulster £1. 13. 4d., one blanket and Rugge 12/–, one Cupbourd 2/6d., one Countinge tyll 2/–, one paire Bellowes 1/6d. [£3. 6. –]

The Porters Lodge

Item one bourded bedsted 1/6d, one fether Bed and 2 boulsters £1. 10. –, one Rugge and a Blancket 8/–, one plancke Table, 2 formes, a paire of stocks £1. 10. [£3. 9. 6]

The Smithes Forge

Item suche Tooles and implemts. as doe Remayne in the Smythes Forge £2. [£2. –. –]

Item in Sotowts [*sic*] chamber the Beddinge wth other furnytr. 13/4d [13. 4]

The Dayrie

Item 3 Brasse potts £1.; 2 chafers and a little possenet 10/–, one Iron Brine, 2 hangers, 2 pot hooks, one gredyron and one Trevett £1. 10.; 5 Brasse pannes & one ketle £2. 10., Suche implemts. as belonge to the Dayrie house £1. 10., in the hall one Table wth 2 formes 4/–; one bourded bedsted 1/–; one feather bed, a boulster & Rugge £1. 6. 8d. [£8. 11. 8]

Item in the *Shepperds chamber* the beddinge wth other furniture amounteth to 15/– [15. –]

Item in *Hunts Chamber* the beddinge wth other furnyture amounteth to 16/– [16. –]

Item in *Bristowes Chamber* the Bedding wth other furnyture amounteth to 12/– [12. –]

Item in the *horsemans Chamber* the beddinge wth other furnyture amounteth to £1. [£1. –. –]

Item in the *Dogge Kep[er]s Chamber* the beddinge wth other furnyture amounteth to 16/– [–. 16. –]

All things belonging to the husbandrey as appearethe by & in Inventorie amounteth to £13. 6. 8d. [£13. 6. 8]

The chamber over the port[er]s lodge/.
Item one bourded Bedstede 1/–, one fether bedde & a boulster £1. 6. 8d., 2 blanckets and Rugge 8/– [£1. 15. 8]

GLOSSARY

[1] Costed—ribbed.
[2] Yoare, Yore—ewer.
[3] Stick—tapestry measure; Flemish ell, about ¾ of our yard.
[4] Vardor—verdure; tapestry of greenery, leaves, etc.
[5] Counterpoint—counterpane.
[6] Jepthae [Greek]—story of Jephthah and his daughter (*Judges*, Chap. 11).
[7] Blanked—blanket.
[8] Sparver—canopy or tester of a bed.
[9] Capline—mantling in heraldry; probably a valance gathered up in 'swags'.
[10] Dornix—a coarse damask originally made in Dornick (Tournai).
[11] Carpinhoe, carphoe—an unknown fabric.
[12] Posnet—small cooking pot with handle.
[13] Latin—latten; a mixture of metals resembling brass.
[14] Powdering stones—weights for pressing salted beef.
[15] Fats—vats.
[16] Busshel—measure.
[17] Dannske—Danish; North European wood.
[18] Cypers—cypress; a reddish hardwood, worm resistant.
[19] Whytehouse—another name for a dairy.

ACKNOWLEDGEMENTS

The Inventory is printed by kind permission of its owner, Mrs. K. M. Burnett Brown, the present occupier of Lacock Abbey, niece of the late Miss Matilda Talbot, C.B.E., and great-granddaughter of Mr. W. Henry Fox Talbot, F.R.S., and therefore herself a descendant of Sir Henry Sharington. Her late husband, Colonel A. D. Burnett Brown, O.B.E., M.C., T.D., a member of the Society, who died in 1966, first drew the notice of the present editor to the Inventory, which he hoped would come into print, if possible, in the *Wiltshire Archaeological Magazine*. The task has been done in his memory, and in token of his interest in the history of the Abbey.

Mr. Francis W. Steer, F.R.HIST.S., the Department of Furniture and Woodwork, Victoria and Albert Museum, and the Department of Textile Industries, Leeds University, deserve thanks for kind efforts to trace the meaning of two obsolete textile terms.

THE KENNET VALLEY SARSEN INDUSTRY

by N. E. KING

TO MOST PERSONS familiar with the area, the names 'Kennet Valley' and 'sarsen' are synonymous. These hard siliceous sandstones derived from Tertiary deposits above the chalk are found elsewhere in Britain as a surface phenomenon, notably in Berkshire, Buckinghamshire and Dorset, but nowhere on the scale associated with the Kennet Valley and Marlborough Downs.[1] Indeed the very name 'sarsen', now widely applied as a geological term for this type of stone, is local in origin. Elsewhere sarsens have different local names, e.g. Denner Hill Stone (Chilterns), Motherstone, Breedingstone (Hertfordshire).[2] In the Marlborough district they have always been known by this name or its earlier variations such as 'sarsden'.[3]

Throughout their distribution in southern England sarsens display wide lithological variation. The typical form, particularly in the Marlborough district, is tabular, grey internally, and composed of sand in a siliceous cement, forming an extremely hard durable rock. Conglomerate forms containing quantities of flints and pebbles also occur. These, however, seem more abundant elsewhere than in the Kennet Valley, particularly in Hertfordshire, where the type is known as 'puddingstone', and at Bradenham in the Chilterns. Typical sarsen is a very heavy dense stone. It weighs 154 lb. to the cubic foot or $14\frac{1}{2}$ cubic feet to the ton.

HISTORY OF THE INDUSTRY

This prolificness of stone, something not normally associated with chalk districts, where durable material is generally at a premium, has been of great use to man from prehistoric times onwards. The sarsen industry of the late 19th and early 20th centuries, with which this paper is mainly concerned, is really the last chapter in the exploitation of these stones.

In the Palaeolithic period handaxes of sarsen were shaped by the flaking technique used for flint,[4] and in Mesolithic times sarsen pebbles were perforated by a process of pecking and drilling.[5] Evidence from Neolithic sites in the Marlborough district suggests that sarsen provided the main source of raw material for utilitarian objects such as querns, rubbers and pounders, shaped again by flaking.[6] In the monumental constructions of this area, the chambered long barrows and circles of standing stones, unworked monoliths were employed, but at Stonehenge the carefully shaped and dressed uprights and lintels display a high degree of proficiency.[7] A fine pair of rotary querns of the 4th century A.D. from the Romano-British settlement on Overton Down provides a remarkable testimony to the skill developed in working this hard stone at a later period.[8]

Apart from very definitely cut sarsen blocks in the recently excavated founda-

tions of Huish church,[9] there is little evidence for the use of these refined techniques from the time of the Saxon settlement until the middle of the 19th century. During this period sarsen employed for building purposes took the form of roughly broken or small natural blocks, and the usual method of splitting was probably the one described first by Aubrey[10] and later by Stukeley[11] in connection with the breaking

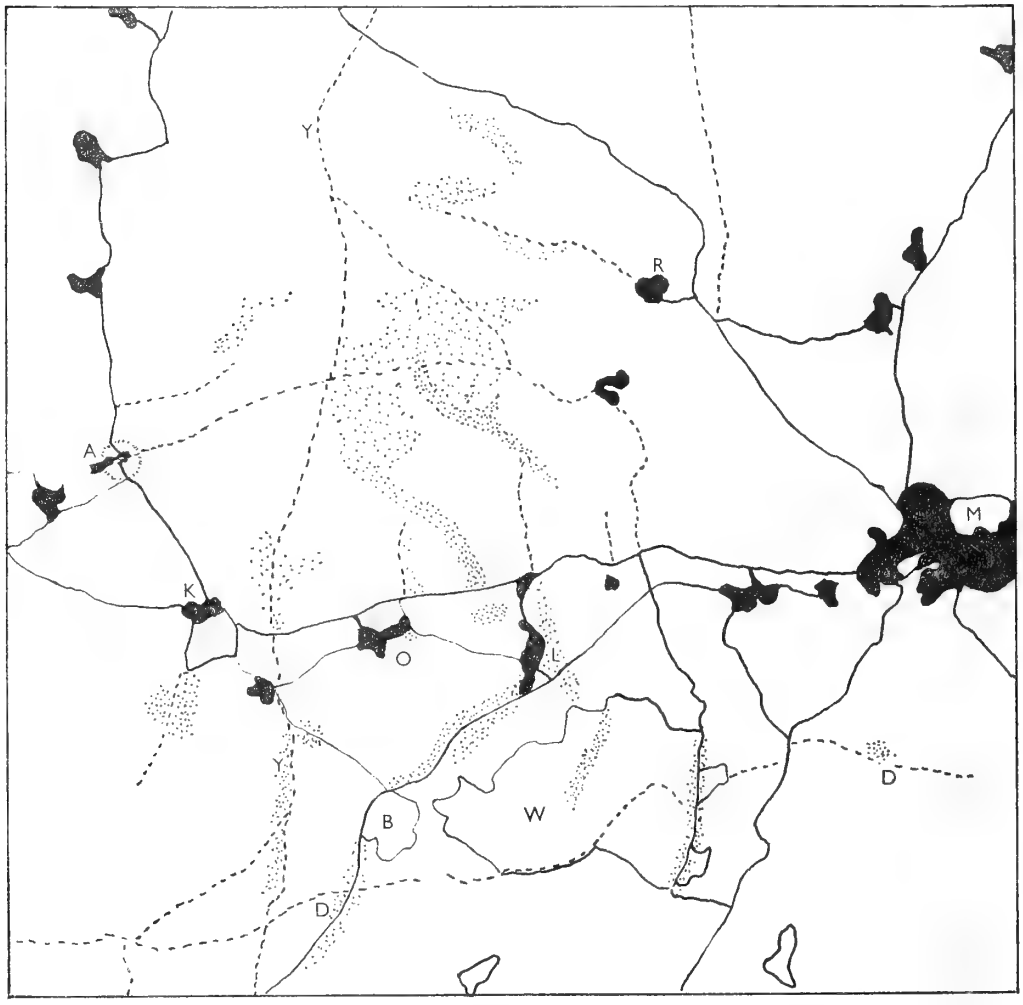

Fig. 1

Areas containing sarsens in the Kennet Valley, 1885 (after A. C. Smith).
Key: A, Avebury; B, Boreham Wood; D, Wansdyke; K, West Kennett; L, Lockeridge; M, Marlborough; O, West Overton; R, Rockley; W, West Woods; Y, The Ridgeway.

up of the stones at Avebury. This involved the use of fire, cold water and sledge-hammers. The technique described by Stukeley, namely, heating the sarsens in pits filled with burning straw, seems to have been refined later, for in the 19th

century the practice was to light strips of firewood across the sarsen boulder, then to pour cold water on the heated lines and use the sledge-hammers.[12] The far more expensive method of blowing the blocks apart with gun-powder was also used occasionally from the middle of the 18th century.[13]

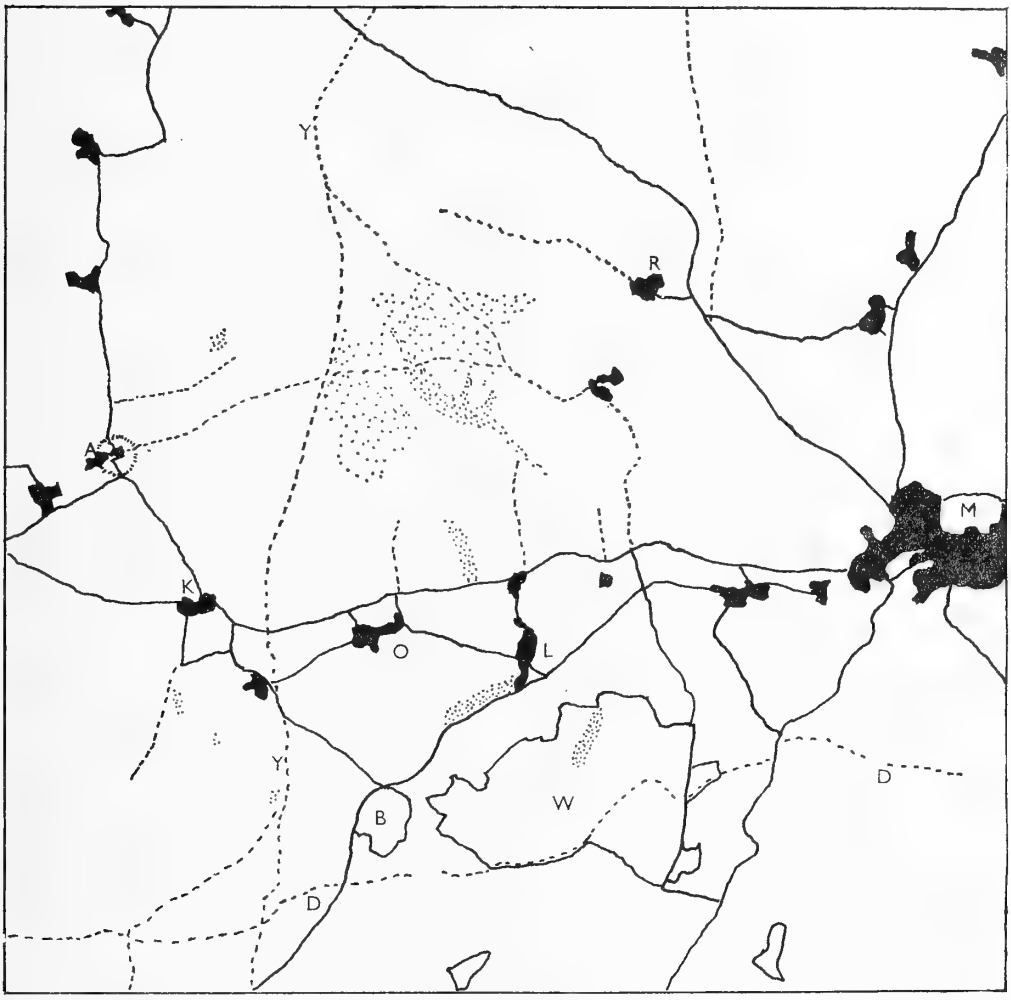

FIG. 2
Major areas containing sarsens in the Kennet Valley, 1968. For *Key*, see FIG. 1.

Sarsen came into its own during the medieval period as a material for house building, even though in Romano-British times it had already been used for house foundations.[14] The character of the Kennet Valley villages like West Overton, Lockeridge, Fyfield and West and East Kennett derives from their thatched cottages with walls constructed of roughly broken blocks of sarsen fitted together in a jigsaw

pattern. We find many references to the use of sarsen from Aubrey's time onwards, particularly for house and garden walls, road mending and paving stones.[15] Symonds's diary of the Civil War refers to the inhabitants of Fyfield building their houses of 'Saracen stones' and laying moss between the blocks.[16] 'Saracen stones' were also being supplied to Marlborough Corporation at this time for building purposes.[17] Another contemporary use of sarsens was for seats outside cottages, and as a means of protecting houses from being damaged by passing vehicles.[18]

In the middle of the 19th century a turn of events took place in the use of sarsen in the Kennet Valley area which had a big impact on its character. In the High Wycombe district of Buckinghamshire, centred round the villages of Hughenden, Walters Ash and Speen, sarsens are also found. These lie deep in the 'Clay-with-flints' capping on the Chilterns Chalk and a stone-cutting industry using them had already existed there for a considerable time. Edward Free, a young man working sarsen in the Hughenden area, heard of the quantity of sarsens available in the Marlborough district and decided that the cutting of these would be a profitable proposition, particularly as, unlike the High Wycombe stones which had to be excavated from the clay, they lay on the surface and were thus easier to work. About the year 1850 he moved from Hughenden to Fyfield and set up in business as a stone-mason. This was the start of the modern sarsen cutting industry which ceased only in the late 1930s. In place of the old rough and ready methods of cutting sarsen, Free introduced the sophisticated techniques developed over the years in the High Wycombe area. These techniques survived with slight modifications throughout the 80 years the Kennet Valley sarsen trade was in existence, and it is interesting to record that the tools used in the industry were to the end still obtained from High Wycombe. Edward Free died at the early age of 40 (an occupational hazard!), but not before he had established what must have been a completely successful business. His brother also settled in Fyfield, not however in the sarsen industry, but as landlord of the now disappeared Fighting Cocks Inn. Edward was succeeded by his son William Edward Free, who continued to develop the business. At the same time another firm by the name of Cartwright appeared in the district. They also came from High Wycombe, no doubt attracted by the story of Edward Free's success. These two firms, Free and Cartwright, continued as the mainstay of the industry throughout most of its life. However, in the early days of the industry local sources recall mention of an individual mason by the name of Jesse Williams, probably also from the High Wycombe area. He, unfortunately, remains rather an obscure figure, although he appears to have worked on his own in the middle of the 19th century in the Clatford and Fyfield areas. There were a few other small competitors who lasted for a year or so, but were unsuccessful for one reason or another.

In 1920 two partners by the name of Thacker and Johnson established a stone-crushing plant at Hursley Bottom in West Woods. They did this by arrangement with the Olympic Farming Company, who owned West Woods at this period. The concrete base of the crusher used still remains to this day (SU 153665). This firm reverted to the technique of blowing sarsens up with explosive; the fragments that resulted were then put through the crushing plant and broken into smaller

pieces. These were sold for road metalling, particularly for use on the main Bath Road which was at that time being widened and repaired. However, sarsen fragments proved unsuitable for this purpose, and the firm went bankrupt within a short time, though not before they had cleared about a quarter of a mile of the sarsens in Hursley Bottom. Echoes of this particular venture were heard again in the last war when some of the sarsens were blown up by American Sappers being trained in explosive techniques.

Both Frees and Cartwrights also developed another side to their business in the sale of coal. It has been suggested that this started as a result of carts carrying sarsens to Honey Street on the Kennet and Avon Canal for shipment and returning with loads of coal brought by barge from Bristol. This coal was then sold locally in the Kennet Valley.

In 1890 the Free family moved from Fyfield to Marlborough, where William, the son of Edward Free, continued with the business, both in sarsen and coal, and it is probably at this period that the industry reached its height of activity, owing to the demands for tram setts and curbing. With the introduction of concrete, a cheap and practical alternative, in the second and third decades of the present century the trade gradually declined.

In 1915, with the death of Mr. Walter Bristow, their experienced sarsen mason, Cartwrights gave up their business and moved away from the area. Frees however continued to supply cut sarsen until the final closure of the industry in 1939, although coal gradually replaced sarsen as the mainstay of their operations. The present firm is headed by Mr. Douglas Free, the grandson of the founder, to whom I am greatly indebted for the information relating to the history of this family.

At first the new industry's output seems to have gone for the old traditional demands of house building, walling, road mending, etc. The much more accurate method of cutting gave, however, a more uniform character to the structures. Post-1850 houses in the Kennet Valley all show standardized blocks, and this is a useful guide to establishing a pre- or post-1850 date for a house in the district. Some of the best examples of these new sarsen buildings, all dating between 1850 and 1890, are: West Overton Church (*c.* 1850); Marlborough College Chapel (1886, Frees); Meux Estate houses, Bath Road, Fyfield.

At this period the Meux Estate owned nearly all the land in this district containing sarsens and most of the houses built by them on the estate seem to be of the new type of sarsen blocks. Although I have been unable to find confirmation of it, I suspect that a reciprocal arrangement of mutual benefit was made with the sarsen firms. This provided building material for the estate and in turn concessions to the firms for working. After 1890 the demand for sarsen as building material dwindled, and the last use locally seems to have been for the new wing of Marlborough Priory about 1915 (Frees). It is interesting, however, that just before the industry finished in 1939, Mr. Cecil Waite executed an order for four waggon loads of sarsen blocks used in the repair of walls at Windsor Castle. The original stone of the Castle came from the High Wycombe area, and it appears that the Kennet Valley was the only sarsen source left at this time that could supply repair material.

In the late 19th century, the demand for sarsen took a new form. Tramways

were being developed and it was found to be ideal for the setts needed for building these. Swindon was the main user in this respect although setts were also sent to other parts of the country. Pavement kerbing was also another ideal use for sarsen and again Swindon Corporation appears to have been the main user. One has only to look at many of Swindon's street pavements today to appreciate the enormous amount of sarsen involved.

Frees had also at the turn of the century a valuable contract with the East Kent Water Company to whom they supplied sarsen for use in building supply hydrants, and a great deal of it was sent to this company over a number of years.

When Frees were working in the early 1900s, it was estimated that they had an output of approximately 300 tons per annum in the form of kerbing and setts. As they then had six men employed in cutting, this represents a man-output of 50 tons per annum, which indicates the numbers of sarsens disappearing at this stage. The contrast between the distribution of sarsens in 1885 and at the present time is illustrated in FIGS. 1 and 2.

In 1907 the National Trust, Marlborough College Natural History Society, and the Wiltshire Archaeological Society launched an appeal to raise money for the purchase of some areas where surviving sarsens could be saved from this increasing demand. They raised £612, with which they purchased Piggledene and Lockeridge Dene in order to conserve the remaining sarsens there.[19]

THE MASONS

Although Edward Free was himself a mason, with the expansion of his business he had to employ others to work for him. Three families have been almost the only persons involved in this trade—the Kimmers of Lockeridge and the Waites and Bristows of Fyfield, handing down their skills from father to son. The Kimmers and Waites worked for Frees, and the Bristows for Cartwrights.

The Waite family's connections with sarsens goes back to Charles Waite, who was almost certainly one of the first masons employed by Edward Free. He had three sons, Henry, Frederick, and Thomas, who followed him into the trade, and carried on as masons for Frees after his death. Henry, the last of these to survive, died in 1925, towards the end of the industry, but not before he had passed on his skills to his son Cecil, who has the distinction of being the last person to cut sarsens for the industry.

The Kimmer family's connections with Frees started in the 19th century with George Kimmer, who was succeeded by his son Frank. Frank Kimmer had two sons, Hedley and Ronald, who both worked in the industry for a time.

Joseph Cartwright of the rival firm had as the mainstay of his operations the services of Walter Bristow, an experienced mason whom he brought with him from Walters Ash near High Wycombe. Other names briefly associated with sarsen cutting for Cartwrights are Saunders, Phillpots and Hillier.

The life of a sarsen mason was an arduous one. The working hours were normally from 6.30 a.m. until 4.00 p.m. Coupled with this was a walk of perhaps three miles, if working in an area like Monkton Down. On the open downs there was

little protection from weather, although the masons had their own special type of lean-to hazel and thatch shelter under which they worked (PL. VII a). Silicosis seems to have been the main drawback of the work, and it is a disturbing fact that most of the masons died at a fairly early age of this disease, as can be seen from the following information:

Edward Free	died	age 40
Charles Waite	,,	,, 45
Henry Waite	,,	,, 42
Frank Kimmer	,,	,, 50
Walter Bristow	,,	,, 48

It is interesting in this context that Mr. Cecil Waite, one of the last two surviving masons, is now 66, a ripe old age as the industry goes.

The masons were employed on a piece rate as follows (1930):

6 by 5 in. setts	— 2/8 per sq. yd.
4 by 5 in. setts	— 3/4 per sq. yd.
4 in. cubes	— 4/2 per sq. yd.
$3\frac{1}{2}$ in. cubes	— 5/– per sq. yd.

The average earnings of a skilled mason at this time were about 45/– per week. Extra money could be made by the masons after hours, by clearing sarsens from arable fields for local farmers. A local contractor now currently performs this service with explosives!

When working the sarsens, goggles were worn to protect the eyes from flying steel and sarsen chips. One of the characteristics of a sarsen mason was that the backs of his hands were generally pitted with steel splinter marks, showing blue under the skin.

For the normal size of sarsen, it would take two days for the masons to cut it up into setts. Mr. Cecil Waite recalls that, when working with his father at East Kennet, they produced the exceptional figure of 140 sq. yards of 6-inch setts out of two sarsens.

When his father died in 1925, Mr. Cecil Waite carried on working sarsens with one of the Kimmer family, Ronald, who however left in 1930 to take other employment. After that time Mr. Waite continued for Frees on his own, a remarkable feat considering that he had to perform both the operations of holding the chisel and of hammering. During the winter he cut turf for Swindon Corporation Parks as an alternative trade. He finally finished in 1939 to take other employment, but as the only person left in the district who understands the art of cutting sarsen, his services are still called upon from time to time in a private capacity.

SELECTING A SARSEN FOR CUTTING

The selection of a sarsen for cutting was done by the judgement of the mason himself. Obviously unsuitable sarsens for splitting correctly, i.e. nodular types, were passed over. The most usual ones chosen were the tabular kind. To confirm his

opinion the mason would chip a piece off the edge of the sarsen to determine its potential. The next step was to dig the soil away from its base to allow for the outward effect of splitting. Quite often the sarsens selected might prove to be useless, having what was locally known as 'shakes', that is, they did not cut properly. These were then discarded and the existing sarsen areas still contain many stones that have been split and left. When the National Trust acquired Piggledene, they cemented these cut stones together to give them what was presumably thought to be a more natural effect. Unfortunately, sarsen, an impervious stone, does not key well with cement so that within a few years they had split again.

THE SARSEN MASONS' TOOLS

The tools used by the masons were specially made and tempered for the industry. The early connections with High Wycombe persisted as all tools throughout the history of the trade were purchased from the firm of Smith's in that town. For many years the maintenance of these tools was also taken care of at High Wycombe as the craft of sharpening and tempering was not understood in the Marlborough area. In the latter years, however, the then West Overton blacksmith, John Radbourne, learnt the art from High Wycombe sources and from that time onwards all sharpening and tempering was carried out at his forge. The normal practice of the mason was to have one set of the tools in use and one at the blacksmith's, changing them over every weekend. The tempering of the chisels was done in oil. The tools themselves (FIG. 3, PL. VII b) consisted of the following.

For splitting the original block

A two-edged hammer known as a 'pecker', used for the initial cutting. Several of these, of varying degrees of sharpness, were needed to cut a single sarsen.

A punch to finish off the holes made by the 'pecker'.

Splitting wedges and a 14 lb. hammer for driving them in.

For making setts

A slicing chisel to make the initial cut and a sharp chisel to complete the cut. Both were used with a handle made of a twisted hazel sapling.

A tracing hammer.

A pecking hammer, used for dressing the setts.

THE TECHNIQUE OF CUTTING

The mason first marked a line across the stone, and then with a 'pecker' made a series of holes roughly 12 inches apart along this line. These holes were gradually enlarged by the use of other 'peckers' with sharper points. To finish these so that they could accommodate the splitting wedges they were finished off with a punch. When the holes were about 1 to $1\frac{1}{2}$ inches in depth, and correct in shape, the splitting wedges were inserted in the holes. To draw the wedge firmly into the hole whilst it was being hammered, a piece of 2 inch hoop iron was inserted first. Once the wedges were in place, the mason, using a 14 lb. sledge-hammer drove

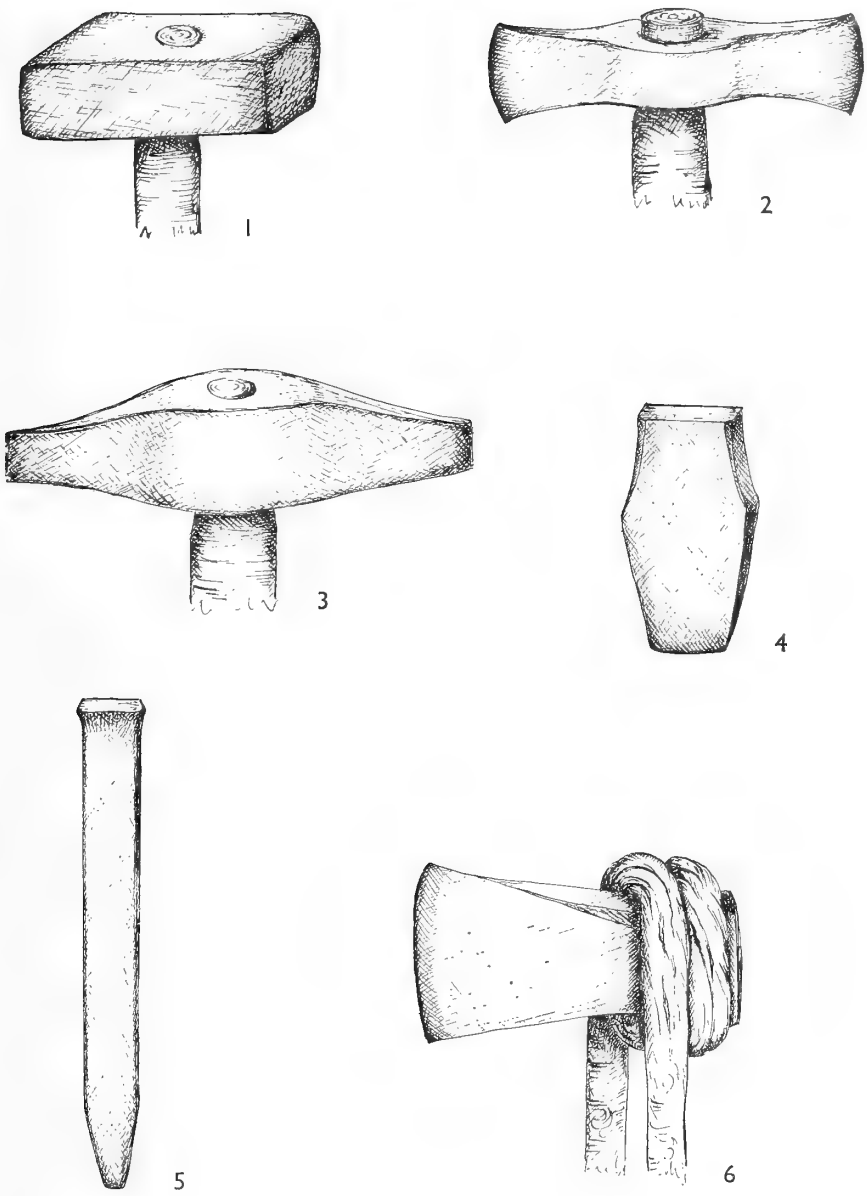

FIG. 3

Sarsen mason's tools: (1) tracing hammer; (2) pecking hammer; (3) 'pecker'; (4) splitting wedge; (5) punch; (6) slicing chisel with hazel haft.

them in. If the sarsen was very large he stood on it to do this, but with the normal smaller size of sarsen he stood on the ground. He hammered in each wedge in turn, until the sarsen split along the line chosen.

Once the sarsen had been split into workable pieces the process of cutting these

up into square setts and lengths took place. This work required greater skill than that involved in making the original cuts, and was generally done only by the most experienced masons. The pieces were normally taken under the special hazel and thatch shelter used by the mason as protection against the weather. Here they were divided into blocks and setts using a 'slicing chisel' and a 'tracing hammer'. This work was carried out normally by two men—one holding the chisel by means of its hazel handle, and the other using the hammer. The last stage was to dress the cut stone if this was required. This was done by the use of a 'pecking hammer'.

After the stones had been dressed there were usually quantities of chippings left. These were quite often used by the owners of the land to fill up farm tracks and gateways, or were sold by the sarsen firms to other farms in the area for the same purpose. Quite often these chips were merely replaced in the cavity left by the removed sarsen. There remain many hollows where these chippings can still be found under the turf.

AREAS WORKED

Temple Bottom and Wick Bottom (SU 135728)

This was the main area where Cartwrights cut sarsen, and they almost completely worked it out. The footpath made by their masons walking daily across the Manton Racing Gallops is now recognized as a public footpath (Fyfield No. 10). The cut sarsens were usually taken by horse and cart to Marlborough railway station, where they were loaded into rail trucks for transport to their destination. Cartwrights finished here in about 1905.

Old Totterdown–Delling Area (SU 135716)

Worked by Frees 1925–1939. Last of sarsens to be worked. Still many sarsens uncut.

Piggledene–Down Barn (SU 135693)

Worked by Cartwrights 1912–1915. Valley cleared of most sarsens, except for National Trust section near the main road. Evidence here of earlier sarsen work in mid-19th century.

Monkton Down–Canada (SU 115713)

Worked by Frees in early 1920s. The sarsens here had a distinctive blue tinge, and were very hard. Many sarsens remaining here until 1965, when they were cleared by farming interests.

Main Fyfield Valley (SU 135710)

Many sarsens here show signs of being cut as in Piggledene, almost certainly in the 1850–60s. Remnants of old chisels still in some of these. Fully protected now by Nature Conservancy.

Stanley Copse, Lockeridge (SU 142683)

Worked by Frees in 1920s. They used a light railway line for extracting the sarsens. Still a few remaining.

West Woods (SU 154666)

Part of the Hursley Bottom worked by Thacker and Johnson 1920, but sarsen deposits intact in northern section. These sarsens are on the average probably the largest sarsens left in natural state.

Boreham (SU 143663)

Down cleared by Cartwrights 1907–1912. Almost all gone.

Lockeridge Dene (SU 144674)

National Trust protection as at Piggledene since 1907. Western end near Boreham mainly worked in 1880–1890 period.

East Kennett Cow Down (*Bushey Penning*) (SU 120658)

Worked by Frees in 1920s. Reference to cutting here by O. G. S. Crawford (1923).[20]

Shaw–New Town Area (SU 123646)

Worked out in the late 19th century. Little remaining, now mainly arable.

West Kennett (SU 106673)

No information available on working date. Still a few remaining.

Clatford Park Down (SU 166670)

Worked since 1880 but no information available. Hardly any remaining.

Acknowledgements

My grateful thanks are expressed to the following: Mr. C. Waite, Mr. C. Bristow and Mr. D. Free for patiently answering my many questions about the industry and its connection with their family histories; Mrs. M. Downs and Mrs. J. Ayers for their help with the illustrations and preparations of the text; Dr. I. F. Smith for her valued comments and advice.

[1] M. Clark, J. Lewin and R. Small, *The Sarsen Stones of the Marlborough Downs and their Geomorphological Implications* (Southampton University: Research Series in Geography, 1967), 3–41.

[2] H. J. Osborne White, *The Geology of the Country around Hungerford and Newbury* (Memoirs of the Geological Survey, 1907), 86.

[3] *W.A.M.*, IV (1858), 333.

[4] *W.A.M.*, 57 (1960), 400.

[5] L. V. Grinsell, *The Archaeology of Wessex* (1958), 6, fig. 1.

[6] I. F. Smith (ed.), *Windmill Hill and Avebury* (1965), 121–3.

[7] R. J. C. Atkinson, *Stonehenge* (1956), 117–24.

[8] *W.A.M.*, 62 (1967), 28–9.

[9] *Ibid.*, 59–60.

[10] *W.A.M.*, IV (1858), 316.

[11] *Ibid.*, 323.

[12] *W.A.M.*, XXIII (1887), 123.

[13] Owen, *Observations on Earth, Rocks, Stones and Minerals for some Miles about Bristol . . .* (1754), 246–8.

[14] *W.A.M.*, 62 (1967), 27–9.

[15] Owen, *op. cit.*

[16] C. E. Long (ed.), *Diary of the Marches of the Royal Army during the Great Civil War; kept by Richard Symonds* (Camden Society, 1859).

[17] *W.A.M.*, III (1857), 111.

[18] Marlborough College N.H.S. Report (1873), 22–31.

[19] *W.A.M.*, XXXV (1908), 497.

[20] Bequest to Wilts. A.N.H.S. of annotated Ordnance Survey Maps.

THE CATHEDRAL ARCHIVES, SALISBURY

by PAMELA STEWART

The Muniment Room

THE CATHEDRAL ARCHIVES are kept in the Muniment Room; this was originally part of the Treasury of the Cathedral, and forms the upper floor—the ground floor being now used as the Canons' vestry—of a small octagonal building, probably contemporary with the main part of the fabric, and leading off the south-east transept. The floor of the Muniment Room is still covered with the original 13th century tiles, though the wooden ceiling and central supporting pillar have been renewed in recent times. So far as is known, the records have always been kept here. There are two enormous and heavy chests here, probably medieval—one of them may be the chest with three locks and three keys mentioned in a deed of 1452, in which the sum of £60 given for endowing a chantry was to be kept, and probably they both contained documents at one time. One of them is now empty and the other contains mainly 19th century lease books, deeds and architects' reports; four large, locked, presses or cupboards now house most of the records (although these have begun to overflow, as they are spread out, repaired and rearranged).

The Records

Most of the records can be divided into three groups: there are first of all the Chapter Act Books, or minutes of proceedings of the Chapter. These begin in 1329 and continue to the present day, although there are several quite considerable gaps, especially from 1358 to 1385, 1475 to 1497, and 1606 to 1660 (this last is partly filled by a rough memorandum book, 'Shuter's Memorials', covering 1622 to 1642). The act books are usually known by the name of the Chapter Clerk who kept them, e.g. 'Hemingby', which is the first; and nearly all have been indexed, all the earlier ones by Richard Drake, who was Chancellor and Communar in the latter part of the 17th century, though his indexes are rather selective. After 1796 the act books are not kept in the Muniment Room but in the Chapter Clerk's office. Besides recording all the business dealt with by the Chapter, the earlier ones especially include other things, such as copies of Royal letters, episcopal visitations of the Cathedral and inventories of houses in the Close.

The second group consists of accounts. Chief among them are the accounts of the Communar, who was the Chapter official administering the common fund; his accounts date from the 14th century and continue until the late 17th. They record the receipt of rents, tithes and other sources of revenue, the distribution of the common fund among the Cathedral clergy, and other payments, salaries, etc., made from it. Then there are the accounts of the Clerk of the Fabric, or Works; these date from 1464 and continue to the 19th century. Besides recording the rents, etc., due to the fabric fund, they often—at any rate up to the early 17th century—

give great detail about work on the fabric—wages, material, and so on. There are also the Choristers' accounts, from mid 15th to mid 16th century; and several other short series of accounts.

The third group is that of deeds, charters and other records of property. There are literally thousands of medieval deeds and manorial rolls relating to Chapter property in Wiltshire, Dorset, Berkshire, Devon and other counties—several hundred are for Salisbury alone—and a number of Royal charters granting rights and liberties. These documents date from the first half of the 12th century, though they do not become really plentiful until the 14th century. Other records include a series of Lease Books of Chapter property, dating from 1608;[1] and a number of Surveys made by Parliament in 1649, of Chapter estates. There are comparatively few post-medieval deeds and this is no doubt because most of these were removed in the 19th century by the Ecclesiastical Commissioners, when they took over the ecclesiastical estates. Their successors, the Church Commissioners, have now returned many of them and they are kept in the Diocesan Record Office.

Besides the records mentioned above, there are of course many others, either belonging to the three main groups or forming other lesser ones: there is an important late 13th or early 14th century volume called Liber Evidentiarum C, which contains copies of deeds, statutes, etc., the originals of many of which have disappeared; and there is a group of mainly 17th century volumes, being collections, extracts and indexes of Statutes and other Chapter records. One record which should not be omitted altogether is the Salisbury exemplar of Magna Carta, which is now kept in the Cathedral Library. Then there are letters, wills, indulgences, *congés d'élire*, and so on. And in fact the documents have not yet been gone through exhaustively.

Condition of the Records

The physical condition of the records is mostly good (although until very recently there was no heating in the Muniment Room); a number of the account rolls and surveys, and some of the volumes, were, or are, in a rather tattered condition, and some of the seals need attention; but repairs to all these are in hand. Apart from this, the only rather disturbing feature is the large number of deeds and charters which have had their seals cut or torn off—sometimes with a slice of the document as well, though without affecting the writing. The importance of the records was indeed recognized from quite an early date; Bishop Martival, in his Statutes of 1319, laid down that a sworn notary was to be appointed to keep a record of the Chapter business, and also that a residentiary canon was to be appointed to safeguard the records and produce them when needed (this was the origin of the office of Custos Munimentorum, which still exists). It is due to these provisions, no doubt, that the Chapter minutes began to be kept regularly shortly after this date, and also that the number of deeds increases in this century very strikingly.

Catalogues and Means of Access

No complete and adequate catalogue exists of the contents of the Muniment Room, although there are several partial ones, made at different times; an attempt

is made here to describe them. First of all two copies (contemporary) survive of a brief list, probably made shortly after 1604 and covering only part of the collections, of records arranged in 20 boxes, each box being designated by a letter of the alphabet and a number; within the boxes they were kept in bundles, the contents of each bundle being described and the number of documents in each given. There is an index and other appendices to this list. The next catalogue is that of Sir Edward Maunde Thompson of the British Museum, made in 1875. This appears to be in two separate parts: the first contains a very brief list of the contents of Press I, a fuller one of Press II (mostly volumes), for Press III a list of the classification headings used (the documents in this press have been selected and arranged according to the prebend or dignitary to which they relate), and for Press IV, a copy of the 17th century list of 20 boxes, which corresponds, for the most part, with the contents of this press. Then secondly, there is a separate, quite detailed, list, also made by Maunde Thompson in 1875, of Press IV, where the documents are still arranged in the order shown in the 17th century lists, by letters, numbers, etc. The number of documents which there should be, according to the earlier list, is set down, and the documents actually seen briefly described; nearly every bundle shows many gaps. Presumably some at least of the missing documents are now in the other presses, but as they have been arranged in these presses quite differently, and no documents have been seen bearing the missing numbers, this cannot be confirmed. It is quite clear that many of the documents in the first three presses could not have been included under the headings of the 17th century list, and many of them have never been listed at all. This detailed 1875 catalogue, with which one copy of the 17th century list has been bound, includes many notes and additions made by Canon Christopher Wordsworth, whose distinctive handwriting appears also frequently in the records, testifying to the amount of work, in the way of indexing, dating, and so on, which he did on them—to mention only one of several scholars and antiquarians whose work, from the 17th century onwards, has made the task of the present archivist easier. Then, in 1901, the Historical Manuscripts Commission published a report by R. Lane Poole on the Chapter records; this surveys the whole of the collections, describing and even reciting verbatim some of the more important documents, especially the earliest deeds and charters. And lastly, in about 1948, the Pilgrim Trust made a brief but comprehensive list and survey of the records—this has been duplicated but not published.

The Present Situation

In 1951 Dr. A. E. J. Hollaender, Archivist at the Guildhall Library in London, was appointed Honorary Cathedral Archivist, and it was no doubt largely owing to him that in 1958 the Pilgrim Trust made a grant of £450 for repairs to the Cathedral records and for providing boxes for them, as well as a further sum for lighting and heating. However, soon after this, Dr. Hollaender's other commitments made it impossible for him to continue in his office at Salisbury, and in 1962 Wiltshire County Council was asked by the Chapter to undertake the care of the records, the County Archivist becoming Archivist to the Cathedral. The records are now administered from the Diocesan Record Office—itself a sub-office of the Wiltshire

County Record Office—at the Wren Hall, 56c, The Close, Salisbury, although they remain in the Cathedral except when being actually used. A detailed catalogue is in progress, and repairs to the records are continuing to be carried out, at the County's expense since the Pilgrim Trust grant is now exhausted. The documents are produced in the Search Room at the Wren Hall, so it is essential for intending users to give a few days' notice of their requirements to the Assistant Diocesan and Cathedral Archivist there.

[1] The 1608 volume is no. 3, but it seems certain that two volumes of leases from among the documents returned to Salisbury by the Church Commissioners are in fact the two earliest Chapter lease books. They cover 1533 to 1609.

NOTES

BEAKER FROM BULFORD

The beaker (FIG. 1) was exposed on November 28th 1967 in a trench dug for an electric cable on the west side of Beacon Hill, at SU 193432 (approx.). The discovery was brought to the notice of Mr. H. Ross shortly afterwards and the finder, Mr. Balcombe of Pewsey, stated that it had been found by the shoulder of a crouched skeleton, which was left in the trench. No traces of a barrow were observed.

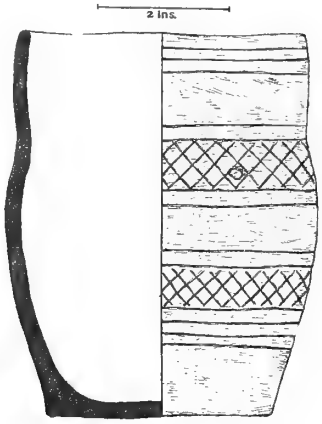

FIG. 1
Beaker from Bulford. Scale: 1 : 3.

The beaker was temporarily loaned to Devizes Museum, who kindly sent it to Salisbury Museum as it was from that Museum's collecting area. In due course it was acquired from the owner by Salisbury Museum (Accession No. 12/1968). The beaker is complete apart from a few fragments that have been broken from the rim, apparently when found. The surfaces have been fired to a reddish orange colour, while in section the centre of the fabric is still black. Decoration is by incision. Numerous largish flint fragments have been incorporated in the fabric and there are some possible grain impressions. Despite the finder having washed the beaker, there are traces of some carbonized material on the interior. The beaker is 14.2 cm. high and the internal diameter across the rim is 9.8 cm.

Dr. David Clarke, of Peterhouse, Cambridge, has kindly submitted the following notes on the beaker based on his large scale statistical survey of British Beakers.[1]

'The Bulford beaker is an excellent example of the ceramic products of the last recognizable phase of the regional Southern British assemblage (S1–S4). Physical integration with, and encirclement by, populations making other pottery traditions seems to have led to the local isolation, fragmentation and loss of intercommunication between the communities which had once been in the centre of the Southern British beaker territories focused on Wessex. These changes are reflected in the increasing heterogeneity and loss of 'coherence' of the attributes clustered in the systems of the ceramic artefact-types—the

complex combination and permutation of selected ceramic motif, zonal style, vessel shape, paste and firing attributes in an assemblage population. This ceramic system, like all others, was a dynamic system with a constantly changing configuration but with selected and restricted central tendencies which had hitherto prevailed. The dilution of these traditions with an increasing proportion of diverse alien attributes and modes, together with the localized ceramic divergence of the isolated beaker communities, jointly mark the superficial termination of this cultural network and its ceramic tradition. In the Wessex area we know this termination to be in some complex relation to the local intrusion of the Middle Rhenish fashions of Wessex I and the regional florescence and material re-equipment of the predominant indigenous population—the Collared and Biconical Urn makers.

'From the pre-Wessex I, Developed Southern British beaker (S2) phase there survive no less than 25 local finds in this area of Wiltshire; from the broadly succeeding Late Southern beaker phase (S3) only five finds and from the Final Southern assemblage (S4), to which this example belongs, only six local finds. It must be stressed that this is a local picture of a ceramic tradition declining in numbers and system coherence—whether this was accompanied by demographic fluctuations, population movements, or simply by ceramic re-equipment, we can only guess.

'The Bulford beaker is a "typical" Final Southern beaker, in the sense that its attributes are modal for the population it represents in the following respects—a slack biconical shape, careless blade stamped and incised ornament in the simplest and most archaic of beaker zonal styles, filled with a similarly elementary lattice motif; it provides an interesting example of the reversion to a residual and archaic format in some but not all of the attributes of a fading ceramic system. Likewise the rather coarse fabric, ill-fired, with large burnt flint grits, converges with the modes of the Urn-makers, although one must again be careful to distinguish this common loss of interest in ceramic finish and the use of pottery as a prestige vehicle from any sense of cultural "decline". It is surely significant that broadly similar changes affect most of the Early Bronze Age ceramics of Western Europe concurrently with the introduction of expensive metal trappings of various kinds. On the basis of radiocarbon dates for beakers of this same category one would guess a date of *c.* 1550–1500 B.C. for the Bulford beaker.'

I must thank Mr. Balcombe for letting Salisbury Museum acquire the beaker, Mr. H. Ross and Mr. F. K. Annable for all their kind help, and Dr. D. Clarke for his notes. Mr. J. Stratton drew the beaker for publication.

C. N. MOORE

[1] For a provisional summary, see *Palaeohistoria*, XII (1966), 179–98; the main corpus is in press.

TWO UNPUBLISHED WILTSHIRE BRONZES

I am indebted to Mr. M. Stratton of Stockton Manor for permission to publish the spearhead (FIG. 1 : 2) and to Mr. H. R. Bristow of Maidstone, Kent, for permission to publish the palstave (FIG. 1 : 1).[1]

The spearhead was found while ploughing in January 1965 in a hollow to the north-west of Stockton Earthworks (ST 965364). It belongs to Greenwell and Brewis's Class IV[2] with 'basal' loops, but the loops have been filed away and the state of the patina clearly shows that this occurred in antiquity. It is unlikely that the basal loops were functional and this modification may well be an imitation of the leaf-shaped spearhead with peg-holes of the Late Bronze Age. This is the only example known to the writer of a spearhead modified in this way.

Spearheads of the 'basal' looped class were manufactured at the end of the Middle

Bronze Age and their production may well have continued into the Late Bronze Age. Dr. Savory has recently published a map of their distribution showing that they have been found in most parts of the British Isles, and occasionally in the Seine basin and the Low Countries.[3] In Wiltshire four other examples are recorded, from Wilcot, Winterbourne Bassett, Brigmerston and Amesbury.[4]

The palstave was found about 1820 by an ancestor of Mr. Bristow's at the 'Bull Ring', Mere (ST 808325), which is on the ridge to the west of Mere Castle. It is a fine example of a 'shield pattern' palstave with a median rib. This type of palstave is commonly found in East Anglia,[5] and the only other example known from Wiltshire is in the Stanton St. Bernard hoard.[6]

C. N. MOORE.

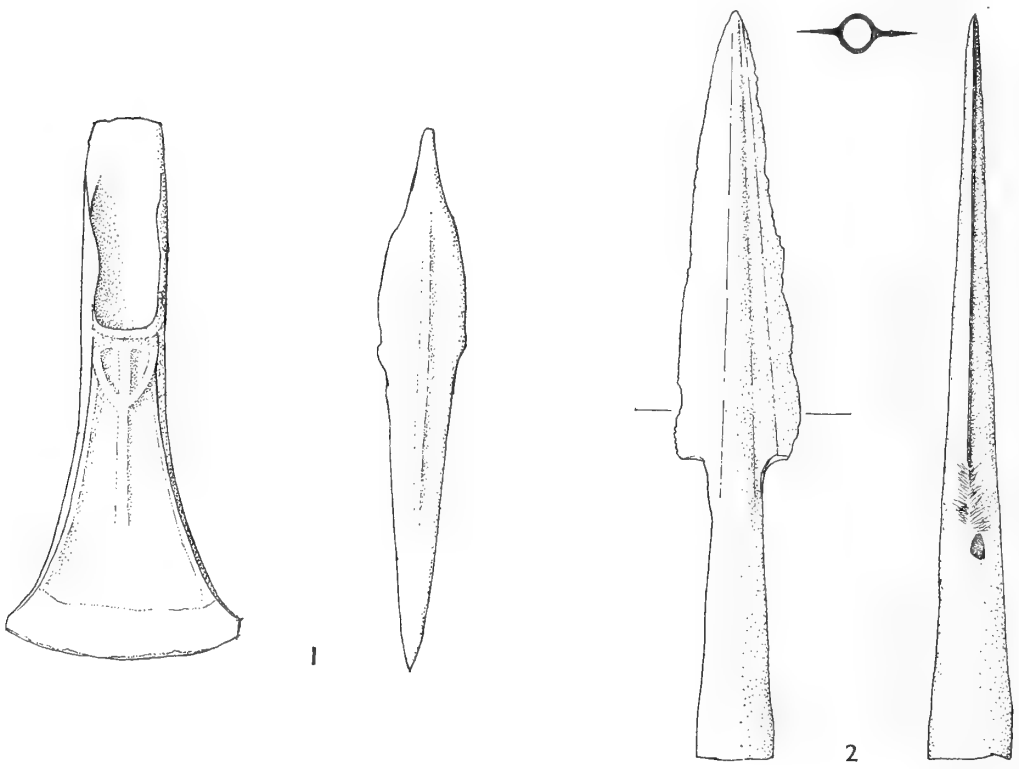

FIG. 1

1. Palstave from the 'Bull Ring', Mere.
2. Spearhead found near Stockton Earthworks. Scale: 1 : 2.

[1] I must thank Mr. N. Griffith for drawing the spearhead and palstave. The bronzes remain with their respective owners.

[2] *Archaeologia*, LXI (1909), 439 ff. See also E. Evans in *Archaeologia*, LXXXIII (1933), 187 ff.

[3] *Bull. Board Celtic Stud.*, XXI, pt. 2 (1965), fig. 8.

[4] The Wilcot and Winterbourne Bassett spearheads are in Devizes Museum (*Devizes Museum Guide Catalogue* (1964), nos. 633 and 635, respectively); the Brigmerston spearhead is in the British Museum (*Guide to the Antiquities of the Bronze Age* (1920), 36, fig. 20). The Amesbury spearhead is in Salisbury Museum (*Archaeol. J.*, CIV (1947), 25).

[5] See *Bronze Age Metalwork in Norwich Museum* (1966), figs. 15 and 16.

[6] This unpublished hoard is in Salisbury Museum. It was found before *c.* 1864 on 'the Earl of Pembroke's Estates' at Stanton St. Bernard. It consists of two, or possibly three, much corroded palstaves.

A NEW CELTIC COIN FROM CVNETIO

In February 1967 an early British bronze coin (PL. VIIIa) was picked up in the north-west corner of the eastern field of Black Field, Mildenhall (SU 217695), by Peregrine Lavington, a pupil at Marlborough College. The north wall of CVNETIO runs roughly parallel, and a little to the north, of the hedge forming the northern boundary of Black Field;[1] and so this findspot is within the area delimited by the walls of the Romano-British township.

Through the good offices of Messrs. E. G. H. Kempson and C. E. Blunt, the finder had this coin conveyed to Mr. D. F. Allen for examination. His subsequent report is as follows:

'This coin, which weighs 3.219 grams, is of bronze, with the patterns on either side raised in high relief. It bears no trace of having been gilded or silvered and there can be little doubt that it was originally intended as a bronze coin and is not the core of a plated forgery.

'It is necessary to say this because the types of the coin on both sides are a greatly simplified rendering of the patterns on certain much heavier Celtic gold coins found in Britain. These coins have traditional patterns which can be traced back, through a very long series of imitations and re-interpretations, to the 'philippic' or gold stater of Philip II of Macedon. The actual types followed by the piece from CVNETIO are those found on British gold staters of the late first century B.C. in Lincolnshire and Nottinghamshire, which can be described under my classification[2] as British I or as no. 53 in Commander R. P. Mack's well known handbook.[3] The head on the obverse is no longer recognizable as such, although traces of the wreath can be discerned, but there is a clear, if much simplified, horse facing left on the reverse.

'Since this bronze coin is, to the best of my belief, unique, it is not possible to say much about where it is likely to have been made or by whom. There is, however, an analogy which may help. The tribe of the Durotriges, who lived in Dorset and neighbouring parts of Hampshire, Wiltshire and Somerset, also struck lighter imitations of earlier gold staters in other metals. The first of these were in silver (Mack 317), but during the first half of the first century A.D. these were replaced by similar coins in bronze, at first struck (Mack 318) and finally cast in high relief (Mack 322 f.). It looks very much as if the new CVNETIO coin falls into the same class; if so, it should belong to the first part of the first century A.D. But until more examples are found, it would be premature to conclude who issued it.

'Other coins have been found at CVNETIO which belong to about the same period of coinage. Four of these are associated with the tribe of the Dobunni, who lived in and around Gloucestershire, but there is also at least one bronze coin of Cunobelinus, minted at Colchester in the second quarter of the first century A.D., and one bronze coin imported from north central Gaul, perhaps a little earlier. This is an unusual group and the new coin adds to its interest.'[4]

We are most grateful to Peregrine Lavington both for his ready co-operation in allowing us to see and use the original version of Mr. Allen's report and for his kindness in placing the coin on loan in the safe-keeping of this museum (Accession No. 26. 1967). We are also grateful to Professor S. S. Frere for providing, and permitting us to publish, a print of his photograph of the coin.

ALAN BURCHARD

[1] F. K. Annable, *Excavation and Fieldwork*, 1959, *W.A.M.*, LVII (1960), 397.

[2] D. F. Allen, The Origins of Coinage in Britain, in S. S. Frere (ed.), *Problems of the Iron Age in Southern Britain* (London, 1961), 108 and 181.

[3] R. P. Mack, *The Coinage of Ancient Britain* (Spink & Son Ltd., 2nd edition, 1964).

[4] D. F. Allen, *op. cit.*, 235, 249 and 279.

THE ANCIENT BRITISH COINS FROM NORTHWOOD, COLERNE

Four early British coins were obtained in 1957 by the Museum, Devizes, from Mr. H. Morrison. Unfortunately, these were described as having come from the wood of Northwood in Colerne parish.[1] Subsequent enquiry has shown that this description was in fact due to a misapprehension. The four coins (accession no. 6/57/288) were actually found in fields in the vicinity of Northwood Barn, to the south-west of Bury Wood Camp. These four coins and two others, also in Mr. Morrison's possession but not recorded at the time,[2] were found scattered over an area of an eighth of a mile radius in three adjoining fields (nos. 127, 128 and 129). The findspots, which range between ST 81337322 and ST 81607350, were obtained through the ready co-operation of Mr. Morrison, and have been marked on the six-inch Ordnance Survey map, sheet ST 87 SW, in the Museum.

A further (seventh) early British coin has recently been found in the vicinity.[3]

Also in the immediate area are the findspots of the two Romano-British coffined burials discovered in 1961 and 1966.[4]

ALAN BURCHARD

[1] *W.A.M.*, LVII (1958), 76 and 103.
[2] Verbal information from Mr. Morrison.
[3] *W.A.M.*, 62 (1967), 117 f.—where it is referred to as a fifth Dobunnic coin.
[4] For the first, see *W.A.M.*, 58 (1962), 223 f.

A SHERD OF FIRST CENTURY IMITATION SAMIAN FROM SOMERSET

The purpose of this note is to draw attention to a sherd of moulded pottery from Somerset finding close parallels in the Devizes area. The sherd (PL. VIII b) comes from a Romano-British occupation site on the Mendips near Green Ore (ST 542508). It bears part of a St. Andrew's cross motif and imitates Samian form 30 (or just possibly 29). The fabric is buff to light red with a grey core. George Boon suggests a date in the later 1st century A.D. (most probably late Flavian).

The sites producing similar pottery in the Devizes area are:

Brown's Barn[1] (pre-Wansdyke) SU 062655;
Mother Anthony's Well[2] (Romano-British occupation site) ST 999642;
Heddington[3] (1st century A.D. occupation site) ST 973673.

There are also a number of sherds from the Stourhead Collection which are unprovenanced but probably come from Wiltshire. It was to these that Wheeler referred[4] in connection with a similar sherd from Brecon Gaer. The Brecon sherd (which unfortunately cannot now be located) was of well-made buff ware and said to copy f. 30; its design includes branched lines and pellets. The pottery from the Stourhead Collection employs similar motifs: the branched lines may be disposed in a simple repetitive vertical pattern or may form part of more elaborate designs among which the St. Andrew's cross occurs; ovolos may be good, crude or absent. Fabric is buff to light red. The Brown's Barn sherd appears to have only a simple pattern of vertical branched lines; that from Mother Anthony's Well has vertical branched lines and crude ovolos; the pottery from Heddington is richly decorated with a branched line pattern capped with rounded pellets, two human figures, two animal figures and a St. Andrew's cross; a second sherd, probably from the same vessel, bears ovolos; the pottery is buff to light red in colour. The pottery from the Devizes area and the Stourhead Collection appears to imitate f. 30, but far more crudely than the Brecon sherd. It is of interest that this pottery has never turned up in quantity on any site: subsequent excavation of the Green Ore site in the early 1950s (unpublished) produced no further examples of this pottery. The presence of a mould fragment in the Stourhead Collection has, however, been taken to indicate a source of manufacture in the Wiltshire area.[5]

I wish to thank George Rogers (the finder of the sherd), G. C. Boon, F. K. Annable, Dr. M. G. Jarrett and W. H. Manning for assistance in various ways. The sherd has been presented to Devizes Museum.

H. S. GREEN

[1] Pitt-Rivers, A. L., *Excavations in Bokerly and Wansdyke* (1892), 272 and pl. CCXXII, fig. 8.
[2] Cunnington, M. E., The Roman Site at Mother Anthony's Well, *W.A.M.*, XXXV (1907–8), 441.
[3] Cunnington, M. E., A Fragment of Romano-British Pottery of Rare Type Found at Heddington, *W.A.M.*, XLIX (1940–2), 219–220.
[4] Wheeler, R. E. M., *The Roman Fort Near Brecon* (1926), 230–1 and fig. 102, p. 231.
[5] *Ibid.*, 231.

SAXON 'GRASS-TEMPERED WARE' AND MESOLITHIC FINDS FROM NEAR PETERSFINGER, LAVERSTOCK

The recent article by Mr. P. Fowler on Saxon domestic pottery in Wiltshire[1] prompted an investigation into the provenance of the complete bowl and other sherds of 'grass-tempered ware' in Salisbury Museum from 'near Petersfinger'. These had passed unnoticed in Mr. Fowler's article, but were noted briefly in the Museum's catalogue of 1864[2] as having been presented by Dr. Blackmore. A search through Dr. Blackmore's manuscript notebooks[3] revealed a remarkably complete account of discovery of the pottery, and suggests that he may have uncovered an early Saxon domestic site and Mesolithic working floor, as well as giving additional information about the Anglo-Saxon cemetery at Petersfinger which was excavated in 1948 and 1951.[4]

From Dr. Blackmore's account it appears that in November 1860 he had examined a newly dug gravel-pit past Dairyhouse Bridge on the right hand side of the Salisbury to Southampton road (SU 155293) in the hope of making Palaeolithic finds. Instead he came across 'imperfectly burnt hand-made pottery most commonly known as "ancient British" ' and with the help of his 'umbrella and penknife' he 'secured all the pieces of pottery then visible', and determined to return on the next day 'with tools more suited to extend the investigation'. This he did and he records that:

'The result of this and many subsequent odd hours grubbing far exceeded one's more sanguine expectations. A considerable quantity of coarse hand-made pottery was procured and the broken pieces joined together . . . giving a very fair idea of the original shape of one of the vessels, which even when perfect must have possessed but little beauty of form or elegance of design.

'Mixed with the pottery and charcoal were bones, teeth and a few very rough flint flakes. The bones were chiefly those of a small ox probably the Bos Longifrons, two fragments however gave evidence of a much smaller ruminant, either sheep or goat.'

Some of the flints mentioned by Dr. Blackmore survive in Salisbury Museum and include Mesolithic blades, scrapers and cores, but no microliths. It would appear that this site is very similar to Castle Meadow, Downton, where a Mesolithic working floor was found in close proximity to a probable early Saxon domestic site, and both here and at Downton the sites were on slightly raised beds of river gravel. Unfortunately, today it is not possible to investigate the Southampton Road gravel pit further, as it has been filled in to make way for an agricultural machinery sales depot, but further traces of settlement might be found in the fields on the north side of the road. It was in this area that in 1958 a Mesolithic tranchet axe was found while hoeing for sugar beet.[5]

The early Saxon 'grass-tempered ware' bowl, restored by Dr. Blackmore, is illustrated here for the first time (FIG. 1).[6] It is a typical example of coarse grass-tempered ware, similar in texture to those found accompanying the Petersfinger burials[7] and at Castle Meadow, Downton.[8] The rim shape of the bowl is similar to several found at Westbury,[9] while the lugs and ring base are also paralleled at Westbury.

Dr. Blackmore's record of this possible early Saxon domestic site at Dairyhouse

Bridge is of very great interest in connection with the Petersfinger cemetery, as the two may well be linked. Dr. Blackmore himself realized this connection as he records burials in the Petersfinger cemetery area which go unnoticed in the Petersfinger cemetery report. Dr. Blackmore notes that when the South Western Railway was built in 1846 numerous skeletons were exhumed from the cutting (i.e. at SU 163293, just to the south of the cemetery) but no account was taken of the circumstances connected with these interments. Later, because of a fall of chalk, it was necessary to widen part of the line, and in doing so the labourers came across two or three further skeletons and one of the labourers, named Sparkman, kept a skull which came into Dr. Blackmore's possession.

In July 1862 Dr. Blackmore records that he 'accompanied Sparkman to the spot where he found the skeleton, and had the satisfaction of finding a portion of the lower jaw and many other bones, much broken and decayed from exposure to the air. Mixed with these bones was half the lower jaw of a large dog. The body was placed in the chalk at a depth of about $2\frac{1}{2}$ feet from the surface: a few broken flints were placed over it. At another spot I noticed a layer of broken flints and thinking it might possibly indicate an interment, removed some of the soil: luckily after digging a short time, one came on the

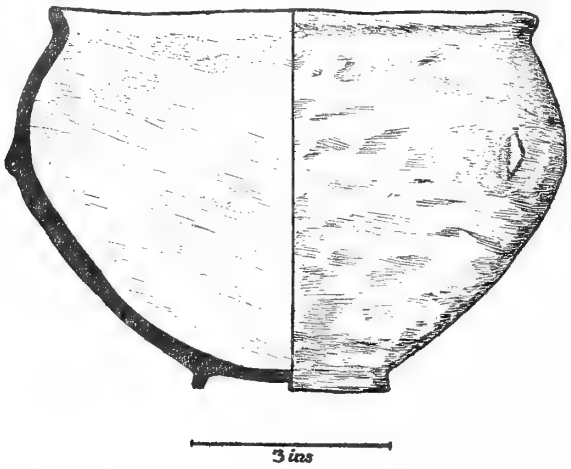

Fig. 1
'Grass-tempered' bowl from near Petersfinger. Scale: 1 : 3.

skeleton of an infant, which from the state of ossification could only have been 4 or 6 months old. Like the preceding skeleton it was extended on the chalk, the head directed towards the north-east: over the neck was a single small greenish glass bead: on the right hand, at a level a little above that of the body, were a few scattered pieces of charcoal and one small fragment of pottery identical with that found in the field below: on the same level with the skeleton was part of the radius, and rib bone of a small ox, and a little nearer the surface a small boar's tusk . . . This elevated hill then was evidently the burial ground of the primitive tribe who lived in the fertile meadows below.'

Dr. Blackmore's conclusions offer for the first time in Wiltshire the possibility of relating an early Saxon settlement to a cemetery. It also shows that the Petersfinger cemetery extended over a far greater area and was far larger than previously thought. These finds also tend to reinforce the growing impression that 'grass-tempered' pottery belongs to the very earliest phase of the Saxon invasions. This is supported by the excavation of 'grass-tempered ware' in the Saxon cemetery at Kingsworthy, Hampshire.[10] The possibility that this ware may have 'Sub-Roman' origins should not, however, be discounted.

Salisbury Museum also has in its collections a 'grass-tempered' pot from near Ibsley in the New Forest,[11] an area which has not, as yet, produced any certain early Saxon burials.

C. N. MOORE and D. J. ALGAR

[1] P. J. Fowler, Two Finds of Saxon Domestic Pottery in Wiltshire, *W.A.M.*, 61 (1966), 31–37.

[2] The lugged bowl is also mentioned in *V.C.H. Wilts.*, I, i, 58, but is wrongly described as having come from the Petersfinger cemetery.

[3] The account is in Dr. Blackmore's 'Locked Notebook', pp. 102–110.

[4] E. T. Leeds and H. de S. Shortt, *An Anglo-Saxon Cemetery at Petersfinger, near Salisbury, Wilts.* (Salisbury Museum Publication, 1953).

[5] Salisbury Museum Accession No. 17/1959.

[6] We must thank Mr. John Stratton for having drawn the bowl.

[7] Leeds and Shortt (1953), 51 and fig. 11.

[8] *W.A.M.*, 59 (1964), 124–9.

[9] *W.A.M.*, 61 (1964), 33, fig. 1, esp. No. 3.

[10] Thanks are due to Mrs. Sonia Hawkes for discussion on this point (C.N.M.).

[11] Unpublished.

A DARK AGE MOUNT FROM BROAD HINTON SCHOOL

In January 1966, the writer visited Broad Hinton Primary School to examine their small collection of antiquities and curiosities and saw among them, unfortunately without any record or label to indicate provenance, the bronze mount here described (PL. VIII c).

It consists of a central circular plate (maximum thickness 0.3 cm., diameter 3.6 cm.) bounded by a rim and with a raised setting in the centre that may once have held some form of stone. The setting is surrounded by a circle of openknot interlace, executed by chip-carving, and projecting from it in cruciform fashion are four short, rimmed arms, two of these having concave 'mouthed' terminations and the other two having terminations expanded and pommel-like. These all bear chip-carved decoration and three of them are perforated. The upper face of the mount, apart from the central setting, shows abundant traces of gilding. The underside is plain and flat, save for the remains of four small, radially placed, raised areas and a circular, rather roughly fragmented, stump at the central point of the plate.

This object was sent to David M. Wilson to obtain his opinion and he has very kindly allowed us to quote from his letter (20th July 1967):

'This is an Hiberno-Saxon mount of the late 8th century, and presumably was used on a bridle. I should say that it is to be dated to the late 8th century, because it is of a type which is found in Norwegian graves of the early 9th century, having been stolen during the early Viking raids on England. The ornament is competent and the interlace of reasonably high quality. There are four filed-down lugs which are presumably the original method of attachment.[1] The best parallel that I have been able to find for this object is published in A. Mahr, *Christian Art in Ancient Ireland*, Volume I, 1932, plate 5, No. 9, which comes from Norway (Agsaed, Laudal, Holum, Vest Agder). This might well have come from the same workshop as your object.

'Regarding the ornament, I would draw attention to the fine engraved lines on one of the terminals which possibly give it a zoomorphic character.

'My identification of this as Hiberno-Saxon is made advisedly as I do not think it is certain that all these objects are of Irish origin; they could quite easily have been made in Scotland, or in fact anywhere in the Irish Sea area.'

Accordingly the likelihood of the object having a Wiltshire provenance does seem highly remote. As well as having some obviously local finds, the collection at Broad Hinton has miscellanea from varied foreign parts and these include a stone axe labelled as coming from Northern Ireland.

The Society is most grateful to the School Managers of Broad Hinton School for placing this interesting object with us on permanent loan (Accession No. 3/1967).

ALAN BURCHARD

[1] In a previous letter (13th April 1967) Mr. Wilson had pointed out that the mount had obviously been adapted at some stage for secondary purposes.

ST. MARY'S CHURCH, CRICKLADE (*W.A.M.*, 61, 40–41)

The faculty (1779) for the erection of the external steps to the Priory Gallery has been found. It is therefore clear that the steps to the rood loft were *internal*, and that their only remains are those to be seen in the south-west corner of the chancel.

T.R.T.

EXCAVATION AND FIELDWORK IN WILTSHIRE, 1967

CHERHILL (SU 03117005) Mesolithic and Neolithic Occupation

The existence of prehistoric remains on the site of a new housing estate to the west of Cherhill village was brought to notice in August by a German student, Bodo Dieckmann, who was staying with Mr. and Mrs. George Drew of Yatesbury. At that time disturbance was still slight and, with the aid of a grant from the Ministry of Public Building and Works and the ready co-operation of the owners, Messrs. H. C. Burbidge (Estates) Limited, a rescue excavation was undertaken on behalf of the Society and the Royal Commission on Historical Monuments (England) by J. G. Evans and I. F. Smith. In the time available it was not possible to explore the full extent of prehistoric occupation in the area under immediate threat, but the site is likely to continue westward into the adjacent field.

The site lies in a valley, near the south bank of the brook that runs west from Cherhill. The immediate subsoil is a deposit of drift derived mainly from the Lower Chalk and laid down in a channel in the Gault clay. The nature and date of this deposit are discussed elsewhere in this volume, p. 15.

Mesolithic

The soil covering the drift was found to contain Mesolithic artifacts over an area of some 750 square metres. The industry includes both geometric and non-geometric microliths, axes, burins, scrapers and saws; microburins, axe-sharpening and axe-thinning flakes occur amongst the by-products. Raw material of non-local origin comprises Portland and other cherts, variously coloured flints, red ochre, sandstone and limestones. Animal bones, including those of wild ox and beaver, were recovered.

Mesolithic frequentation of the site had terminated when the area became waterlogged; tufa had then formed a seal over the land surface of this phase of occupation.

Neolithic

The Neolithic features had been cut through the tufa and underlying soil into the drift. There were two phases of activity.

Phase I was represented by a continuous linear hollow of extremely irregular shape and depth which extended from west to east for a distance of 33 m.; it then turned sharply to the north-east, but its full length in this direction was not established. At least part of the fill had been introduced deliberately. Pottery of Windmill Hill affinities lay on the bottom, together with fragments of querns and bones of domestic animals. The deep soil formed over the primary fill yielded sherds of Ebbsfleet, Mortlake, Rinyo-Clacton and Beaker wares.

The two ditches of Phase II, both containing Mortlake ware in primary positions, intersected the earlier hollow and had been dug after the latter was completely levelled. Both had silted up normally. One, which followed a more or less straight course, was exposed for a distance of some 30 m. It was shallow and narrow, but regular in shape, with a rounded bottom. Causeways divided it into segments of varying length and depth; a line of small stakes had been driven into the bottom of one segment. The second ditch, exposed in one cutting only, differed in alignment, shape and size. It had been cut to a depth of nearly 1 m. into the subsoil and had vertical sides and a flat bottom about 1 m. in width.

DURRINGTON: DURRINGTON WALLS (SU 150437) Late Neolithic and Iron Age

The entire route of a proposed road through the eastern half of the interior of this henge was excavated by G. J. Wainwright for the Ministry of Public Building and Works. The excavated strip was 900 yds. long and 50 yds. wide; mechanical excavators removed the ploughsoil. The features investigated were as follows:

(i) The bank and ditch in their south sector where the south-east entrance to the henge was located. The flat-bottomed ditch was 50 ft. wide and 20 ft. deep and its silts were removed over a length of 110 ft. The rapid silts produced quantities of Late Neolithic pottery, antler picks and flint implements. The ditch was set 90 ft. inside the bank, which was itself over 100 ft. wide.

(ii) Inside the entrance causeway was a circular timber structure, 130 ft. in diameter. Rather more than one half of this structure was excavated, the remainder lying to the west of the threatened area. The structure consists of seven concentric rings of post-holes and was built in three separate phases, all of which were associated with abundant domestic remains of the Late Neolithic period. This southern circle has obvious analogies in Woodhenge, which lies 100 yds. to the south, and in the Sanctuary on Overton Hill. The post-holes were exceptionally well preserved and ranged from 18 in. deep in the outer circle to 10 ft. deep and 6 ft. in diameter in the inner circles.

(iii) To the north of this structure was found a midden which was terraced into the side of the valley and contained abundant remains of the Late Neolithic period.

(iv) At the north end of the excavation was a circular timber structure consisting of two concentric rings of post-holes; it was shielded by a façade and approached from the south by an avenue of timber uprights.

(v) A Late Iron Age occupation was established on the evidence of pits and a palisade trench which cut across the southern circle.

AMESBURY: STONEHENGE AVENUE (SU 14004210)

An excavation was directed by F. de M. and H. L. Vatcher for the Ministry of Public Building and Works prior to construction of the Amesbury by-pass. A 41 m. length of the Avenue ditches was examined as well as ground between and outside. The course of the ditches was irregular. They measured 1 to 1.95 m. across at the top and 0.40 to 1.00 m. deep. Finds included an ox scapula and antler picks.

AMESBURY (near Stonehenge, SU 12174228) Bronze Age Stockade Trench

An excavation prior to construction of the exit area of the pedestrian underpass on the south side of the road, west-north-west of Stonehenge, was directed by F. de M. and H. L. Vatcher for the Ministry of Public Building and Works. The terminal end of a V-profile stockade bedding trench was discovered. The trench was 1.3 m. deep, 1.2 m. wide, and the posts had been 0.3 m. in diameter. The trench was sealed by three turf lines, the uppermost containing Romano-British pottery and the lower containing sherds of Late Bronze Age type. An intrusive crouched burial had been inserted at the extreme end of the terminal after the posts had decayed.

WINTERBOURNE STOKE/WILSFORD (SU 09994150) Bronze Age Settlement?

An excavation was directed by F. de M. and H. L. Vatcher for the Ministry of Public Building and Works prior to construction of a roundabout at the Winterbourne Stoke cross-roads. The ground was stripped to the chalk in the four quarters of the former cross-roads area, and the ditch at SU 10004135, south of the cross-roads, was sectioned. South-west of the long barrow were four circular structures, probably Late Bronze Age huts. South of the A303 were several small, shallow, circular pits containing a few thick urn fragments and a Beaker sherd. West of the old Devizes road alignment a stockade trench

ran north-south in a wide curve; it may have been connected with the settlement. A further stockade trench, aligned approximately east-west, was found south of the two ditch cuttings at SU 10004135. The ditch itself, narrow and V-shaped, provided no dating evidence, but appeared to have had a bank on either side, and was probably a boundary.

WEST OVERTON (SU 1370) Iron Age and Romano-British Settlements

P. J. Fowler's excavations continued from the position reached in 1966 and described in *W.A.M.*, 62 (1967), 16–33. References below relate to that report.

Site X. The ditch round the Iron Age settlement was traced geophysically. It apparently enclosed an area of about $1\frac{1}{2}$ acres and, when sectioned, proved to be only 7 ft. wide and 3 ft. deep. Behind it was a 14 ft. gap, presumably the site of the bank subsequently flattened by cultivation, before post-holes of the settlement began.

Site XI. No further Beaker burials were discovered, though Burial 1b (FIG. 1) was completely excavated, proving to be an unaccompanied flexed male inhumation. Features of the Iron Age settlement included more pits, post-holes and chalk-cut 'ring-grooves' of a complex of circular timber structures about 50 ft. east of Gully 1. Gully 2 (FIG. 1) was found to be part of the same structure as Gully 1 and the published plan (FIG. 2) is therefore incomplete. Plough-marks belonging to the overlying 'Celtic' field were again noted.

Site XII. A further 'platform' of this late Romano-British settlement was excavated. It had probably supported one stone-footed and two timber rectangular structures, all more or less in the same position, but varying slightly in dimensions. The largest building, in timber, had been 37 by 20 ft., with five bays about 7 ft. wide. Pottery and metalwork of the 4th century A.D. were again abundant, the series of some 70 coins from this platform continuing to Arcadius.

BOX (ST 824686) Mesolithic Occupation and Roman Villa

An emergency excavation, sponsored by the Ministry of Public Building and Works and directed by H. R. Hurst, took place on the site of the new village hall. The site lies immediately east of the nucleus of the Roman villa and the aim was to test the area in advance of builders' levelling. Finds indicated Mesolithic as well as Romano-British occupation of the site.

Mesolithic. A thin scatter of worked flints was present in disturbed layers throughout the site. Although there was nothing unequivocally diagnostic amongst this material, it included one microlith and, with other evidence for Mesolithic occupation at Box (*W.A.M.*, LVI (1955), 160), is best assigned to that period. One unretouched blade appeared to underlie the deposit of tufa which covers the western half of the site.

Romano-British. As previously excavated (*W.A.M.*, XXXIII (1904), plan facing p. 244), the east wing of the Box villa lies north-south, with an eastward extension at right angles. This extension just entered the site on the south and its eastern extremity was established, 120 ft. from the central courtyard. Other features to the north of this lay outside the villa. These consisted of a stone-built culvert (traced further to the south in previous excavations) and a probable boundary wall lying parallel to the culvert. All these belonged to the same period of construction, which followed demolition of an earlier building. Pottery antedating this phase was as late as *c.* A.D. 300, but insufficient was found to make the date reliable.

Further excavation is planned for summer 1968.

WANBOROUGH: *Durocornovium* (SU 195855) Romano-British Settlement

Excavations on behalf of the Ministry of Public Building and Works were continued by E. Greenfield.

Ermin Street. The only remaining undamaged part of the Roman road was investigated. Two phases were identified: (i) a flat primary surface of compacted limestone, 75 ft. wide, with a ditch on the east side; (ii) laid upon this, a secondary cambered stone surface, 15 ft. wide. Chalk rubble had been spread over the primary surface on the west side. Dating evidence on the road surfaces and from the east ditch suggests a date of A.D. 70–100 for the primary construction and possibly a 3rd century date for the secondary surface.

Area east of Ermin Street. Investigation of the area round TH 107 in Field 496 revealed the limestone foundations of Building 1. This was a house of rectangular plan, measuring 40 by 45 ft., and consisting of a block of four rooms, with a fifth attached on the east corner. Numerous coins suggest a 3rd–4th century date for construction and occupation. A secondary east-west road, leading east from Ermin Street, had partly absorbed the southern edge of the fifth room.

No further stone buildings were located in a trench extending for 250 ft. north-west from the main excavation, but a wall composed of limestone slabs and belonging to Building 6 was found to the south. This was not completely excavated, but associated rubbish seems to indicate a 3rd–4th century date.

A secondary road in Field 497 was found to continue east after apparently crossing the main line of Ermin Street.

Area west of Ermin Street. The remains of four buildings were found in an area measuring 104 by 64 ft.

Building 2 was represented by foundation trenches filled with stone rubble and sarsen boulders. It was rectangular in plan, 54 by 37 ft., and comprised one large internal area with a smaller room, 28 by 10 ft., in the south corner. This had a flooring of pink concrete and a tiled hearth. There was evidence for the use of large flat slabs of limestone in the east wall.

Building 3 appeared as a rectangular chalk floor, 44 by 20 ft., laid on the primary limestone surface of Ermin Street. The surviving wall foundation, fronting Ermin Street, was of sarsen boulders. This was associated with an entrance or porch, 12 by 8 ft., and a stone step that jutted out into the road. There had been some minor alterations at a later date. Pottery and coins suggest that the building was constructed during the fourth quarter of the 1st century, with occupation continuing into, and probably throughout, the 2nd century.

Building 4, probably constructed in the 3rd century and in use during the 4th, appears to have been of roughly semi-circular plan, with a gap in the centre of the curved side. An area of heavy stone metalling extended from this side over the west side of Building 3.

Building 5 was only partially investigated. It was about 21 ft. wide, and the foundation exposed consisted of a double line of sarsen boulders, 4 to 5 ft. in diameter. Pottery from the internal floor levels suggests a 2nd–3rd century date.

Further excavation is planned for 1968.

ALTON: WANSDYKE (SU 117647) Linear Earthwork ? Post-Roman

Further excavation of the Wansdyke at Red Shore took place under the direction of H. S. Green, University College, Cardiff, with the aid of a grant from the Society of Antiquaries. This excavation formed part of a continuing programme of research.

In the Red Shore area Upper Chalk is overlain by a mantle of Clay-with-flints varying in thickness from 2 to 4 ft. or more.

Pollen analysis from the pre-dyke soil profile here has shown that the dyke was constructed through open grassland in this area: a layer of humus, under the stone-free 'turf-line', containing many shattered flints, charcoal and very fragmented pottery (including Savernake ware), interpreted in 1966 as a plough-soil, produced cereal pollen. The ploughsoil layer under the dyke thickened from 3 in. at the tail of the bank to 12 in. on the lip of the ditch—probably piling up against the lynchet of a 'Celtic' field. Field

work by Collin Bowen and the writer in 1966 identified 'Celtic' long fields within 300 yds. of the 1967 bank and ditch section.

The 1967 excavation showed the bank to be approximately 35 ft. wide and 6½ ft. high, although considerable erosion has taken place. The bank was found to consist of successive tips of Clay-with-flints, chalk and pre-bank ploughsoil; no turf was found in its construction, but the core of the bank was not examined. The 'humus-like' layer found high up in the bank in the 1966 section survived only on the very crest of the bank, where it merged with the modern humus. There seems no reason to refute the hypothesis that this layer may represent the cleaning out of secondary ditch silt. Any evidence for palisading had been destroyed by erosion and so restricted excavation was undertaken close to the 1966 excavation. No evidence of palisading was found. The bank lacked frontal or rear revetment and was of simple dump construction.

The bank sloped with virtually no berm into a ditch 36 ft. wide and 15 ft. deep; the profile was approximately V-shaped, narrowing to a width of 3 ft. at the bottom. No sign of any collapsed revetment was found in the ditch. Its primary chalk silt contained bands of winter and summer silt comparable to those detected in the Experimental Earthwork on Overton Down. Low in the ditch silt (1½ to 2½ ft. from the ditch floor) was a layer of clay and humus containing many large flint nodules—most probably the result of field clearance during ploughing. Even if one interpolates a period in which the ditch silted partially and was cleaned out between the dyke's construction and the deposition of the flint nodules, it would seem that the dyke's effect on activity in the area can only have been transient. This hypothesis is supported by the way in which the Wansdyke appears to cut earlier estate boundaries which nonetheless survived to become the present-day parish boundaries.

LUDGERSHALL CASTLE (SU 263515) Medieval

Excavation and consolidation continued under the direction of P. V. Addyman on behalf of the Ministry of Public Building and Works. New information gained from the various excavations is summarized below by period.

13th to 15th Centuries. Removal of destruction levels in the north-east corner of the northern ringwork revealed the end of the undercroft located in 1966. It was shown to be a three-bayed building, 42 by 18 ft., with centrally placed door at the east end, blocked late in the Middle Ages. A second door, at the south-west corner, was located in 1966. Various buildings lie east and south of the undercroft, and some clearly extend over the filled-in inner ditch. Most abut each other with straight joints, and clearly represent piecemeal expansion in the 13th and 14th centuries. At this time the inner bank of the southern ringwork was also partly levelled for the erection of domestic buildings. The 1967 excavations revealed there a range of much less substantial buildings, with timber foundation beams cut into the levelled bank, and low flint and chalk foundation walls elsewhere. The buildings were clearly timber framed, and the internal features, an unlined oval latrine pit with small room adjacent, an oven with partly preserved superstructure and chimney base, suggest for them a domestic function. They, and the buildings of the northern ringwork, clearly demonstrate the progressive sacrifice of the castle's defences to the increased needs for domestic accommodation in the 13th and, particularly, in the 14th century.

Excavation in the northern ringwork also located a massively constructed large building of the 13th–14th century lying near the centre of the ringwork. It will be further excavated in 1968.

12th Century. At the end of 1966 it seemed probable that the ashlar steps of later 12th century date found below the later ranges in the northern ringwork were contemporary with timber buildings being revealed around. Further excavation has shown that this was not so. The foundation trench for the steps cuts through a mortar floor which itself seals the destruction level of the latest timber buildings. The steps therefore represent a

separate and later phase. The timber buildings themselves now fall into three clear periods. Finds from all but the last period are meagre, but they must be mid-12th century or earlier. There seems little doubt that the timber and earth inner bank of the northern ringwork was present from the earliest occupation of the area (nothing has even been found beneath it). It probably survived intact at least until the destruction of the buildings associated with the ashlar steps. Remanent magnetic dating of samples from beneath the inner bank of the southern ringwork (previously tentatively assigned to the mid-12th century) corroborates a 12th century date, though the samples are not of good quality (see *Archaeometry*, 10 (1967), 133).

In the southern ringwork various indications make it clear that 12th century timber buildings are also to be expected below the later medieval service buildings. Furthermore, trial excavation of linear anomalies on the resistivity survey within the southern ringwork indicated the presence of a network of deep vertical-sided trenches. Those examined contained substantial amounts of burnt daub in the fillings, suggesting that they represent bedding trenches for daub-clad timber buildings. A few sherds of pottery recovered from them hint at an early post-conquest date.

HUISH (SU 145637) Medieval Structures

Subsequent to the excavation reported in *W.A.M.*, 62 (1967), 51–66, N. P. Thompson began the examination of features in the field to north of the churchyard. This field was called a *conigre* in a survey of 1574, and in the tithe award of 1842 a *conegar*. Contours suggested pillow mounds, but an exploratory cutting soon revealed a building platform cut into the hillside.

Foundation walls of small chalk rubble, up to 12 in. high and 2 ft. wide, were those of a building that measured externally 28 by 16 ft., and probably comprised two bays. The latest floors of both bays were earthen, but earlier floors were gravel (in the north bay) and puddled chalk (in the south bay). These had been laid on levelled natural greensand. Several earlier phases of building were indicated by post-holes and various walls, including a row of five large natural sarsen boulders, set in a trench and later incorporated into the final building. Continuous occupation on the site for about 400 years was suggested by 11th century pottery in some post-holes and 15th century finds on the floor of the latest building. The field was then probably used as a rabbit warren.

Adjoining the building to the south was a platform of shaped stones, clunch and sarsens. The sarsen stones were shaped in a similar way to those used in the 13th century walls of the church. On the platform was found a bunch of lead cames and fragments of stained glass with similar designs and in the same state of decay as the glass found during the church excavation, which was only about 100 ft. away. This may suggest that the windows for the church were stored or assembled on this platform.

The finds, not yet fully examined, include the following: a Venetian silver *soldino* of Michele Steno (doge, A.D. 1400–13); a French bronze counter, late 14th century; a 13th century bronze steelyard weight with the iron balance, complete except for the wooden beam (see this volume, p. 66); and miscellaneous metal objects ranging in date from the 14th to the 17th centuries.

All the finds have been donated to Devizes Museum by the owner, Mr. J. B. Strong. It is hoped to continue work during 1968.

RESCUE AND RESEARCH WORK IN THE SALISBURY AREA

The Salisbury Museum Archaeological Research Group, formerly the Research Committee, continued excavations on the deserted medieval village at Gomeldon (John Musty and D. J. Algar) and on the earthworks near Winterbourne Gunner church (D. S. Callow and D. J. Algar). In addition, rescue work was carried out at Crockerton on a late 16th century pottery kiln (D. J. Algar) and in Salisbury, where two timber-framed buildings

were surveyed and related to the archaeological levels beneath (D. J. Algar and R. P. de B. Nicholson). The Group was able to assist the Ministry of Public Building and Works to record features revealed at Old Sarum during the cutting of a pipe-trench. Finally, a limited watch has again been maintained on the ever-increasing number of development sites in and around Salisbury.

IDMISTON: GOMELDON (SU 182356) Deserted Medieval Village

The object of the fifth season of excavation was the further exploration of Complex 7, in particular completion of the examination of Building 7c and the yard.

Building 7c was shown to have at least two construction phases. In the first phase it had a single entrance opening on the yard; in the second this entrance had been blocked (in the late 13th century, as indicated by a developed scratch-marked ware sherd found beneath the blocking), a cross-wall added, and new opposed entrances inserted. One opened to the yard, the other to the street. Building 7c was probably used as a 'house' in Phase 2, as a hearth had been constructed against the cross-wall, although the sparseness of pottery finds suggests that this was only for a short period. In Phase 1 it may have been merely a farm building. This evidence suggests the interesting possibility that two families were separately housed (in 7a and 7c) in the one holding (possibly father and son). Alternatively, Building 7c may have replaced 7a as the living quarters of the farm unit shortly before the village became deserted.

An examination of the yard area indicated that it was kept surprisingly clean; i.e. there was not a great deal of surface wear and the pottery scatter tended to be inside and just outside the buildings rather than strewn across the yard. The entrance to the yard was demarcated by two flint-packed massive post-holes set 10 ft. apart. The fourth side of the yard perimeter was also examined for evidence of a wall (there are buildings on the other three sides). No wall was located, nor was there clear evidence for the post-holes of a fence. It is therefore assumed that there must have been a hedge.

During the excavation of Building 7c the edge of the village street was also uncovered. A series of stake-holes to a total of 150 was found to run along its edge. It is believed that these are post-medieval and probably associated with hurdle constructions for the penning of sheep; such pens possibly also utilized the ruined walls of Building 7c.

WINTERBOURNE GUNNER (SU 180354) Medieval Earthworks

A limited amount of work was again carried out on the earthworks in Church Field. Resistivity surveying and trenching failed to reveal the southern side of the enclosure, which we must now assume to be just south of the present field boundary. Nearer to the church on the south side a minor bank and part of a possible building platform were sectioned. This trench yielded many sherds of 12th–13th century cooking ware associated with animal bone fragments and dark soil, but they could not be related to any definite floor level.

Thus the evidence from the excavation so far suggests a medieval date for the earthworks. As a working hypothesis it is now assumed that the major banks are the remains of an enclosure which formed the immediate boundary of the manor of Winterbourne Gunner. It is also likely that the minor earthworks south of the church are the remains of lesser domestic buildings associated with the manor house. The supposed site of the latter, which was built over in the 1930s, lies to the south-west of the church, between it and the river. The de la Meres held the land in the 13th century, and it is from one member of this family, Lady Gunnora de la Mere, that the village name is derived.

LONGBRIDGE DEVERILL: CROCKERTON (ST 862423) Post-Medieval Pottery Kiln

Following the report of a sherd scatter to the Salisbury Museum, an excavation was undertaken on a suspected kiln site. One kiln of a single-flue type was excavated; it was of

late 16th century date (*Archaeometry*, 10 (1967), 134). Numerous place-names in the area suggest potting activity: Clay Street, Jersey (Jarsey) Hill and Potters Road. Although Crockerton has a documented history of pot manufacture from at least the middle of the 13th century, no pottery could previously be described as 'Crockerton ware'.

The kiln was situated on ground sloping away to a valley on the north. It consisted of an oven-pit, 2 ft. deep and 5 ft. in diameter, lined with sandstone, and with a central plinth 3 ft. in diameter. The annular space between the oven-pit wall and the plinth was bridged by about 18 radiating fire-bars, also of sandstone. The oven floor of pottery and tile fragments was supported on these at ground surface. No evidence for the superstructure was found. A single flue, 3 ft. in length (but largely destroyed by a later trench), led into the oven-pit from the stoke-pit on the north-east. This area, which was not completely excavated, covered a shallow working pit up to 2 ft. in depth and running back for about 14 ft. from the end of the flue.

The products were basically in a fine red ware with greenish brown glaze and consisted of large pans, wide-mouthed jugs, rectangular 'meat dishes', floor and ridge tiles, etc. There were also many types of bowl, some of which were decorated with overlapping thumb impressions on strips of clay applied beneath the rim. Preliminary work suggests that the kiln was supplying West Wiltshire and the Bristol area.

SALISBURY (SU 144302) Scots Lane, Toone's Court

In advance of demolition in the White Horse Chequer there was an opportunity to examine the two timber-framed buildings hidden behind Nos. 12–18 Scots Lane and also to sample the levels beneath them.

One was a four-bay building parallel to the road; the other, of somewhat earlier date, was set at right angles to the road and comprised two bays. It was possible to record much of the structural detail. Although extensively altered and decayed, both buildings could be dated about A.D. 1500. Stone fire-places and chimneys inserted in the late 16th century used many pieces of late 12th century carved stone which would appear to have come originally from Old Sarum.

Excavation beneath the floor of the two-bay building revealed a series of floors going back to *c.* 1300. It is hoped that after demolition further excavation will yield the complete ground plan of one of Salisbury's earliest permanent buildings.

SALISBURY (SU 143298) New Street Chequer

On the Hammerson development site there is little to report except the finding of 17th century pottery and glass at the rear of the Old George Hotel and the presence of chalk floors, probably of medieval date, at No. 49 New Canal.

SALISBURY (SU 151296) Southampton Road

During pipe-laying in the drive of St. Martin's rectory in Tollgate Road and nearby in foundation trenches considerable deposits of 19th century material were recovered. These included pottery fragments which could be dated by inscription to about 1840. The area, just outside the city boundary on the road to Southampton, appears to have been extensively quarried for gravel, the pits being used subsequently for rubbish tipping.

SALISBURY: OLD SARUM (SU 138327) Roman and Medieval

The Ministry of Public Building and Works, helped by the Salisbury Museum Archaeological Research Group, excavated a pipe trench 2 ft. wide in the vicinity of the eastern entrance. Medieval ditches and buildings were encountered in the outer bailey of the castle. Flint and mortar walls, 14 ft. apart, flanked a multi-period roadway leading

up from the main eastern causeway. Stone structures were found within this causeway. A ditch containing a few sherds of Romano-British pottery, traces of medieval buildings, including a chalk-lined cellar, many pits, and a sunken trackway were noted where the trench followed the line of the present-day footpath to the main road.

NETHERHAMPTON (SU 123290) Iron Age Occupation

Trenches on a development site occupying the lowest slopes at the west end of Harnham Hill have revealed evidence of Early Iron Age occupation. Pottery fragments, black soil and many animal bones were found near the bottom of what appeared to be a ditch. This feature, which was about 3 ft. deep and of similar width, was running in an approximately north-south direction. The sherds were all of large storage vessels, of a fine homogeneous grey brown ware with a small amount of shell backing.

The new finds are about one mile from the known Iron Age settlement on the top of Harnham Hill (*W.A.M.*, XLVIII (1939), 513). It is possible that they may represent another isolated farmstead, similar to that at Little Woodbury, which is itself a mile east of the Harnham Hill site.

ADDENDA FOR 1966

During 1966 the following excavations were undertaken by F. de M. and H. L. Vatcher for the Ministry of Public Building and Works:

AMESBURY (near Stonehenge, SU 12104235) Undated post-holes

The clearance of topsoil down to the chalk prior to the westward extension of the car park at Stonehenge revealed three large post-holes, $4\frac{1}{2}$ to 5 ft. in diameter and 5 ft. deep, each containing traces of one post 1 to $1\frac{1}{4}$ ft. in diameter. The posts were 32 ft. and 40 ft. apart, in a slightly curved line running approximately east-west. There was no dating evidence. Their positions have been marked by concrete plinths in the new tarmac.

AMESBURY (SU 155395) Undated linear earthwork

A linear earthwork defining the boundary to a system of 'Celtic' fields on Amesbury Down was found to have a bank 2 ft. high and a V-shaped ditch 5 ft. deep. There had been three phases of construction, commencing with a post-bedding trench, and a possible gate structure where the earthwork changes its alignment. There was no dating evidence.

SWALLOWCLIFFE (ST 967255) Bronze Age and Pagan Saxon Barrow

A Wessex barrow had a small chalk mound, a single causewayed ditch, and an outer bank. The primary grave had been destroyed by a large Saxon grave, filled with Gault clay and containing the remains of bed furniture, a bucket, a barrel, a wooden container, broken enamelled ironwork, and an extended inhumation half removed by a disturbance. Also found were two palm cups, a buckle, belt sliders, disc and strips, and a diadem, two brooches, a spoon, incense burner, glass beads and a comb. A spearhead was found in the final (Saxon) phase of turf mounding.

OFFICERS' REPORTS AND ACCESSIONS 1967

REPORT OF THE CURATOR AND ACCESSIONS TO THE MUSEUM

AS FREQUENTLY REITERATED in these reports, the unending task of maintaining an attractive museum interior continues each year. Early in January the Neolithic Room was redecorated, and later some small, but necessary, decoration was effected in the Roman Room pending major reconstruction at a future date. In October the pottery laboratory was rearranged and additional shelving was added in order to utilize all available space in this small room. On a number of occasions minor repairs were made to the building.

Inevitably the arrangement of the new Iron Age Room has absorbed much of our thought and effort, and by December all the interior fittings had been made. There still remains labelling and illustration, and the collating of the mass of information which it is intended to incorporate within the room. All this has to be completed for the formal opening by Dr. D. B. Harden, Director of The London Museum, at the Society's Annual General Meeting on 25th May 1968. Dr. Harden's acceptance of our invitation to open the room will give much pleasure to the Society. It is particularly fitting that he should do so, for as a member of the Joint Committee of the Museums Association and Trustees appointed by the Carnegie United Kingdom Trust, he has contributed enormously to the Society's good fortune in receiving generous financial assistance towards the re-constitution of its Museum.

The Marlborough Bucket was delivered to the British Museum Research Laboratory for restoration and remounting on 15th March, and the Society is grateful to Mr. N. P. Thompson who kindly provided suitable transport. The bucket may not be completed in time for the Annual General Meeting, but the Society is fully aware of the heavy demands made on the resources and expertise of the laboratory from all quarters, and we await its return in due course.

Work on the Appendix to the Archaeological Gazetteer published in *Victoria County History*, Vol. I. Pt. i (1957), although continuing has to some extent been retarded by the need to concentrate on the Iron Age Room. Other publication projects also begun last year have, for the same reason, been delayed, but with the room completed, these will be taken up again with the hope of their completion during 1968. As part of a series of 'Surveys and Policies' of all archaeological periods initiated in 1966 by the Archaeology Sub-Committee the Curator is preparing the section dealing with the Roman period in the county.

At the request of the Committee of the Society for the Promotion of Roman Studies, catalogue cards were prepared in the Museum of all the Society's Roman sculptured stones. The Upton Lovell amber necklace was radiographed by the British Museum laboratory on behalf of Miss Sabine Gerloff, a research student at the Institute of Archaeology, Oxford.

The museum has been fortunate in the publicity it has received during the year through the B.B.C. Material from the West Kennet chambered long barrow has been featured in a number of television programmes, and in February, two stone 'Celtic' heads found near Marlborough, and recently added to the collections, were included in the television programme, 'Finds of the Year', in which the curator took part.

On the conservation side a good deal of repair and restoration has been necessary

on pottery and metalwork intended for display within the Iron Age Room. Many finds, including a considerable and interesting group of ironwork from Mr. N. P. Thompson's Huish excavations, have been cleaned in the laboratory, and a selection is shortly to be put on display.

Six postcards of museum objects were commissioned early in the year. There have been vexatious delays in production, but it is hoped that they will be on sale by early spring.

The Society's collections have again been amply used by visiting specialists and students, and these included: Miss J. J. Taylor, Cambridge University (Bronze Age goldwork); Miss Isla McInnes, Edinburgh University (Neolithic pottery); J. W. Haldane (All Cannings Cross pottery); Miss Francis Lynch, University of North Wales (Bronze Age material); Adrian Oswald (clay pipes); D. V. Clarke, Cardiff University (Iron Age material); A. D. Lacaille (Palaeolithic flintwork); Miss Ursula Slevogt and Miss Sabine Gerloff, Institute of Archaeology, Oxford (Anglo-Saxon glass and Bronze Age beads); H. S. Green, Cardiff University (Neolithic and Bronze Age flintwork).

Likewise there have been many requests for loans of archaeological material for demonstration and educational purposes. Special exhibition loans were made to the West Knoyle and Great Bedwyn Parish Councils, the South Western Gas Board, and the Teffont Parochial Church Council. An exhibition of recent acquisitions was also arranged in collaboration with Salisbury Museum, and help was given at the Society's Open Meeting in Devizes during October.

The Society's excavation equipment was provided for use during archaeological excavations at the following sites: Wansdyke, in the Red Shore area; Huish, a medieval occupation site; Iron Age and Romano-British settlements on Overton Down, West Overton; a Mesolithic/Neolithic site at Cherhill; Roman villa, Box.

Outside lectures, including guided visits to archaeological sites, were given to societies, schools and groups within and outside the county. The Curator gave a short course of five lectures on 'Roman Wessex' organized by the Extra-Mural Department, Bristol University, and held at Melksham. Further courses arranged by the Extra-Mural department included a weekend lecture and field study of the Wansdyke, at which the Curator spoke on 'East Wansdyke—its Archaeological Setting'.

The University Extension lectures organized jointly by the Society and Bristol University took place as usual in the Museum Lecture Hall under the title 'Post-Roman Britain—Some Recent Work'. The speakers were:

3rd November: P. A. Rahtz, 'Recent Excavations at Glastonbury'.
10th November: B. Davison, 'Early Medieval Fortifications'.
17th November: Mrs. Elizabeth Fowler, 'Post-Roman Celtic Art'.
24th November: P. V. Addyman, 'Early Settlements'.

One most striking and pleasant outcome of the gradual modernization of the museum is manifest each year in the continually growing number of societies, institutions and educational groups whose archaeological trips include, as an essential item, a visit to the museum. Their often appreciative comments are both welcome, and a spur to further efforts towards greater achievement. Some idea of our popularity may be seen from the following selected list of groups visiting Devizes last year:

The universities of Oxford, Cambridge, London, Sheffield; Bedford Training College; Westminster College, Oxford; Extra-Mural parties from London, Weybridge, Nottingham; Redlands College, Bristol; Farnham School of Art; student groups from Sweden and America; King Edward's School, Birmingham; the Basingstoke Field Society. There were visits also from various W.E.A. groups and institutions within the county.

The annual attendance excluding schools amounted to 3,709.

At the end of August the Curator attended the Ulster Conference of the Prehistoric Society.

The Museum staff are deeply grateful, especially this year, to Mr. Cole for his assistance with constructional work in the Iron Age Room, and for his invaluable efforts

in keeping the museum in such good decorative order. To Mrs. Cole also we offer our usual, but very sincere, thanks for her devoted service.

The thanks of the Society are also extended to all those who have made gifts or loans to the collections during the year.

ACCESSIONS TO THE MUSEUM

GEOLOGY

Fossil ammonite of the genus Proplanulites. Recovered from the Lower to Middle Oxford Clay during constructional work at Nestlé's factory at Staverton, Trowbridge. ST 856609 approx. Nestlé's Company Ltd. 31/67

PREHISTORIC

Fragmentary human bones. Recovered from topsoil of round barrow, Beggar's Knoll, Westbury. ST 88745078. L. V. Grinsell, Esq. 63/67

Small bronze knife-dagger with hollow-ground cutting edges. Middle Bronze Age. Found in the garden of New Town Farm, Alton. G. F. R. Smith, Esq. 76/67

Polished flint axe of Neolithic date. Surface find at Grafton. SU 250604. C. Plank, Esq. 74/67

Two carved heads; one is janiform, the other is carved from the central area of a fossil ammonite. Probable date, 1st century B.C. to end 1st century A.D. Exact find spot unknown, but the heads were in the possession of Mrs. Iris Waters, Grange Farm, Buttermere, Marlborough. Mrs. Iris Waters 1/67

Barb and tang flint arrowhead of ? Wessex type. Length 2¼ in. From the garden of Mulberry House, Urchfont. SU 041574. Mrs. J. Firth 22/67

Seven sherds, including a single rim, of reddish, heavily gritted pottery of Neolithic date. From Rybury Camp. SU 08306387. Previous finds of Neolithic pottery from the same spot are reported in *W.A.M.*, 60 (1965), 127. Mrs. Robin Kenward 25/67

Polished greenstone axe of Neolithic date. Pet. No. 818. Found in 1925 in the garden of Box House, Box. (See *V.C.H.*, I, i (1957) 44.) Collections of the late A. Shaw Mellor 49/67

Sherds of haematite pottery, storage vessels and incised wares; iron and bronze fragments; various bone artefacts, including pin, needles, weaving comb and spindlewhorl; antler fragments; spindlewhorls of chalk, clay and ? stone. All of Iron Age date, and recovered as surface finds in a field locally known as 'Black Earth Field', Cold Kitchen Hill area. ST 845383 approx. Miss Mather 50/67

Large assemblage of flint arrowheads, axe fragments, scrapers and other flint artefacts described as surface finds from various localities which include the areas of Box, Colerne, Corsham, Monkton Farleigh, Euridge, Durnford, Windmill Hill and Avebury. Collections of the late A. Shaw Mellor 54/67

Group of sherds, including one rim fragment, all of Iron Age date. Bone fragments were also associated with the pottery. From the back garden of No. 6, Bydemill Gardens, Highworth, at a depth of four feet. Mr. Spargo 64/67

Eight sherds; one of All Cannings Cross type decorated with incised and pointillé ornament. From the garden of No. 16, Bydemill Gardens, Highworth. G. A. G. Webb, Esq. 65/67

Nether stone of rotary quern, probably of Iron Age date. From Mother Anthony's Well, Bromham. ST 999642. A. P. Tucker, Esq. 73/67

Small assemblage of extremely crude pottery which includes a fragment of a Bronze Age collared urn with cord-impressed decoration. Surface finds at Barbury Castle Farm. SU 151754. J. W. Covey, Esq. 68/67

ROMAN

Æ coin of Emperor Constantius II (A.D. 323–61). Reverse: type of FEL.TEMP. REPARATIO. From the area of Wanborough. S. F. M. Burge, Esq. 23/67

Samian and coarse pottery, lead sheeting, glass fragments, metal objects, roofing tiles, animal bones; all of Romano-British date, late 1st to 4th centuries A.D. Recovered from pits and as scattered finds during deep trenching for sewer pipes at Enford. SU 132520, 136519. Rev. N. A. H. Lawrance and J. W. Covey, Esq. 8–15/67

Flanged bowl of New Forest manufacture; probably late 3rd to 4th century A.D. Imitation of Samian form Drag. 38. The flanges are decorated with white paint. Exact locality unknown, but found within one mile of Casterley Camp.
J. W. Covey, Esq. 19/67

Sherds of Samian pottery of form Drag. 33. Surface find to north of Knook Castle. ST 959446. H. S. Green, Esq. 30/67

Group of Romano-British sherds, including bead-rim of late 1st century A.D. Surface finds ¼ mile south-east of Pewsey Hill Farm. SU 169573. N. P. Thompson, Esq. 32/67

Figured and plain Samian wares, coarse pottery including New Forest types, glass fragments, all of Romano-British date, 3rd to 4th centuries A.D. From the collections of the late A. Shaw Mellor, and listed as being found at the following sites: Roman villa, Stanton St. Quintin; Sandy Lane; Euridge; Monkton Farleigh; Atworth Roman villa; grave at Corsham. Collections of late A. Shaw Mellor. 33–38/67

Bronze hinge-pin brooch of degenerate AVCISSA type. Surface find, Northwood Farm, Colerne. Collections of late A. Shaw Mellor 48/67

Samian and coarse pottery including bead-rims, handled platters, flanged bowls. Late 1st and 4th centuries A.D. Surface finds in a field locally known as 'Black Earth Field', Cold Kitchen Hill area. ST 845383 approx. Miss Mather 50/67

Crescentic brass pendant with suspension loop. ? Roman horse trapping. Found at Church Cottage, Box. Collections of late A. Shaw Mellor 63/67

Romano-British pottery, 1st to 4th centuries A.D., part of bronze brooch, ? 1st century A.D., and fragment of sheet bronze. Surface finds in Avebury parish. SU 080692.
Dr. J. G. Evans 55–56/67

Coarse pottery, fragments of flue tiles, tesserae, and part of quernstone. Surface finds from a Romano-British building at Aldbourne. SU 26257350. 66/67

Samian and coarse ware, including flanged mortarium of 3rd and 4th century A.D. Surface finds Barbury Castle Farm. SU 151734. J. W. Covey, Esq. 68/67

Coarse pottery of 3rd and 4th centuries A.D. Recovered during constructional work at Enford. SU 13255205. J. W. Covey, Esq. 70/67

Fragment of handled platter, 3rd to 4th century A.D. Found on West Woodlands Farm, Selwood, Somerset. ST 782433. J. S. Etheridge, Esq. 71/67

ANGLO-SAXON

Socketed iron spearhead. Locality unknown, but possibly Wiltshire. From a collection of objects at Broad Hinton School. The School Managers 2/67

Bronze four-armed roundel, upper surface decorated with chip carving, and originally gilded. Hiberno-Saxon, probably 7th/8th century A.D. Locality unknown. From a collection of objects at Broad Hinton School. The School Managers 3/67

Sherds of grass-tempered pottery. Found during sewer trenching at Enford.
J. W. Covey, Esq. 10/67

MEDIEVAL

Encaustic tiles, glass fragments, worked chalk, building stone, pottery, all of medieval date. Recovered during excavations carried out at Huish Church by N. P. Thompson.
J. B. Strong, Esq. 20/67

Sherds of medieval pottery, 13th to 15th centuries A.D. Surface finds at Barbury Castle Farm. SU 151734. J. W. Covey, Esq. 68/67

Sherds of medieval pottery, 13th to 16th centuries A.D. Surface finds from a building site at Highworth. SU 204922. J. W. Covey, Esq. 69/67

Assemblage of iron and bronze tools and objects of domestic use. Recovered during excavations immediately north of Huish Church, directed by N. P. Thompson. J. B. Strong, Esq. 72/67

Bronze ? book mount, consisting of small figure of a lion within a rectangular framework pierced at the corners for attachment. Probably medieval. Found beside Berricott Lane, Budbury, Chiseldon. H. W. J. Cuss, Esq. 75/67

Medieval sherds probably of 13th century A.D. Recovered from a cutting across the bank of an earthwork known as Hall's Close, at Ashton Keynes. Group Capt. G. M. Knocker 78/67

RECENT

Relief patterned stoneware jug, probably early 18th century. Found containing a hoard of six crowns, 42 half crowns of Charles II, a half crown of Charles I, two gold rings and a length of silver braid. The hoard was buried just below the eaves in the back garden of 76 The Square, Chilton Foliat. Miss P. M. Martin 4/67

Large iron horse bit, inscribed 'ADAMS BROS'. Probably 19th century. From below the floor of 55 Court Hill, Potterne. J. A. V. Houseden, Esq. 5/67

Pair of iron candle snuffers. Early 18th century. L. Luckett, Esq. 6/67

Portion of antler tine, reminiscent of prehistoric antler pick, but probably of recent date. Found on Rollestone Allotments, Devizes. Master D. J. Smith 7/67

Eight clay pipe fragments of 17th century date, and stamped with the following makers' names: Jeffrey Hunt, Thomas Hunt, Nathaniel Howell, John Howell, Richard Greenland. Mainly found in the Queens Road, Devizes, area. F. W. G. Cowdry, Esq. 51/67

Collection of clay pipe fragments of 17th to 19th centuries. Stamps include those of T. Hunt, Jeffrey Hunt, Richard and Gabriel Bayley, Richard Lee. From various localities. Collections of the late A. Shaw Mellor 52/67

Double hooked iron object with wooden handle. Said to have been used for tightening horse girths. Probably 19th century. L. Luckett, Esq. 60/67

Guillotine type of grocer's cutter mounted on a rectangular wooden base. 19th century. J. M. Buckeridge, Esq. 62/67

Assemblage of dark green-glazed sherds of post-medieval date, probably 17th century. From West Woodlands Farm, Selwood, Somerset. ST 782433. J. S. Etheridge, Esq. 71/67

Yellow and brown glazed sherds of domestic pottery, 16th to 18th centuries A.D. Found in the garden of Brook House, Ashton Keynes. Group Capt. G. M. Knocker 77/67

NUMISMATICS

Bronze coin of Ancient British type (Allen's classification, British I). Weight 3.219 gm. Surface find in the north-west corner of Black Field, Mildenhall. SU 217695. P. Lavington, Esq. 26/67

Bronze Ancient British coin of Evans Type C.A.B. G 5–6. Weight 37 gr. Found in the garden of Box House, Box. Collections of late A. Shaw Mellor 39/67

Collection of Roman silver and bronze coins of 3rd and 4th centuries A.D. Mainly from the parishes of Box, Atworth and Colerne. Collections of late A. Shaw Mellor 40–56/67

Æ coin of Emperor ? Crispus. (A.D. 333–50). Reverse type of FEL.TEMP.REPARATIO. Locality unknown. B. T. Water, Esq. 59/67

Æ coin of Emperor Crispus (A.D. 317–26). Reverse type CAESARVM N (ostrorum); mm. ? PLG. From the garden of Pippins Well, Potterne Road, Devizes. ST 999598. R. C. Towill, Esq. 21/67

Commemorative medal inscribed: 'From the citizens of Bradford on Avon 19th July, 1919 with gratitude to C. ORCHARD.' Reverse inscribed: 'For services rendered in the Great War 1914–19.' N. du Quesne Bird, Esq. 27/67

Lead ? counter bearing crude relief decoration on one side only. Possibly medieval. Locality unknown. N. du Quesne Bird, Esq. 28/67

Silver *soldino*, Venetian. Of Michele Steno, doge 1400–13. Weight 0.367 gm. Found during excavations immediately north of Huish Church, directed by N. P. Thompson. J. B. Strong, Esq. 29/67

Exeter halfpenny, 1792, with reverse inscription: 'Success to the Woollen Industry.' Locality unknown. 17th-century trade token, Chippenham S.I.A.; Nuremberg counter, 'Hans Krauwinckel'; bronze farthings of Charles I and James I, and other illegible bronze coins. Listed as from Box House. Collections of late A. Shaw Mellor 46–47/67

Commemorative medallion in white metal. Coronation of King George V and Queen Mary. Inscribed on reverse: 'Royal Borough of Devizes, R. H. Caird, Mayor.' B. T. Water, Esq. 58/67

Oval lead medallion. Within inscribed encircling 'belt' is depicted the forepart of a horse in relief. Reverse side plain. Date uncertain. Probably from Wick, Devizes. B. T. Water, Esq. 58/67

Small square lead coin weight. Ship on one face only. 14th/15th century. Found in the garden of 48 Queens Road, Devizes. T. D. Honeyball, Esq. 61/67

Shilling piece of James I, September 1690 (Gun money). Reverse: Crown over crossed sceptres. XII above crown. W. Simons, Esq. 67/67

ACCESSIONS TO THE LIBRARY

BOOKS PRESENTED	DONOR
Notes on the History of Marlborough, by A. R. Stedman	Author
Social History of England, by Ralph Arnold (Constable, 1967)	Publishers
A Short History of Fovant, by Dr. R. C. Clay (1967)	Author
Leisure in Wiltshire	Wilts. County Council
The Uses of Air Photography, by Dr. J. K. St. Joseph (John Baker 1966)	Publishers
The Work of William Morris, by Paul Thompson (Heinemann, 1967)	Author
Camulodunum (The Society of Antiquaries, 1947)	E. G. Kempson
Stanwick (The Society of Antiquaries, 1954)	E. G. Kempson
Skara Brae, by V. G. Childe (1931)	E. G. Kempson
Esau Reynolds of Trowbridge, by K. Rogers	Author
Culture and Environment: Essays in Honour of Sir Cyril Fox	Chester W. Ham
The Herberts of Wilton, by Tresham Lever (John Murray, 1967)	Dr. T. R. Thomson
Eton College Register, 1695–1752	K. Rogers
Inclosure Acts for Compton, Kemble and Poole, West Kington, Calne	R. F. Halcomb
Inventorium sepulchrale	R. de C. Nan Kivel
The Great Volunteer Review	Captain A. Harfield
Wessex, by Peter Fowler (Heinemann, 1967)	Publishers
Letters from Mrs. Delany (1820)	K. Rogers

A fine collection of books and pamphlets, mostly relating to the Roman period and including several books on Roman coins, and notes on excavations in which he was interested, have been left to the Society by the late Dr. A. Shaw Mellor, and are now housed in the Library.

BOOKS BOUGHT

Privileged Persons, by Hester Chapman (1966)
An Awkward Size for a Town, by K. Hudson (1967)
Plants and Archaeology, by G. W. Dimbleby (1967)
Midland and South Western Junction Railway, by C. G. Maggs (1967)
Four Victorian Ladies of Wiltshire, by Edith Olivier (1945)
Country Moods and Tenses, by Edith Olivier (1941)
Salisbury 200 (1967): History of Salisbury Infirmary
Revised Medieval Word List, by R. E. Latham (1965)
Devizes Town Plan (1967)
Salisbury City Plan (1967)
The English Village Community, by W. E. Tate (1967)

PAMPHLETS PRESENTED	DONOR
The Mills of Swindon, by Mark Child (1967)	Author
Copy of Will of William Bayliff of Chippenham (1613)	Dr. T. R. Thomson
Wriothesley pedigree	Dr. T. R. Thomson
Box Stone Mines, by R. J. Tucker (Cotham Caving Group)	
18 photographs of the Marlborough Bucket	British Museum
5 photographs of milestones on the Stourton Coach Road	B. M. Stratton
Freke family pedigrees	K. Rogers
Melksham Parish Church (1912)	R. B. Pugh

PAMPHLETS, PRINTS, ETC., BOUGHT

Painting by Wheatley of a house at Keevil
Painting by Crocker of Little Langford Church
History of Everleigh, by W. A. Edwards (1967)
Book of drawings of Wiltshire Antiquities by William Hensley Phillipps, MS. 10560.

REPORT OF THE SECRETARY

During the year membership of the Society has risen from 800 to 909, made up as follows: Individual 758; Life 50; Institutional 84; Junior 17. This net increase of 109 is indicative of the success which members are achieving in encouraging their friends to join, and also of the increasing interest which is being taken in the activities of the Society by people in general. At this rate of growth the Society can now look forward, with confidence, to reaching a membership of 1,000, possibly before the next Annual General Meeting.

Three Sub-Committees were set up during the year, the first to examine the whole question of current valuations of the Society's premises, also the contents of the Museum and Library, and to make recommendations; the second to consider the adequacy of the allocation of £75 a year for the repairs and maintenance of the contents of the Library; and the third to examine the Society's Coin Collection with a view to recommending whether any duplicates or other items not connected with Wiltshire might, with advantage, be disposed of and the proceeds added to the £100 already set aside for the purchase of coins minted in Wiltshire.

Each of these Sub-Committees produced a most informative report and useful recommendations, most of which have been implemented.

A close liaison was maintained with the Wiltshire County Council, also with voluntary bodies with kindred aims.

REPORT OF THE HON. MEETINGS SECRETARY

Four day excursions were held, with attendances again high and varying from 90 to 150. Two of the days were fine, and two had showers but were predominantly sunny, so the Society's usual luck held for yet another year. At the suggestion of Brigadier Forbes the set lunches were dropped at three meetings in favour of a buffet at a lower price. This proved a definite success, and doubled the numbers of members who ordered lunch tickets. The meetings produced a profit of £40 over the year.

Details of the programmes were as follows: *20th May*, Beanacre Old Manor (Mr. Daniel Awdry, M.P.), Beanacre Manor (Mr. L. Barker-Tufft), the annual general meeting at Lackham School of Agriculture, ending with an informal visit to the museum of agricultural implements there; *17th June*, Woodlands Manor, Mere (Mr. Peter Parnwell), Pythouse (Mutual Households Ltd.), and the grounds of Fonthill House (Lord Margadale); *15th July*, Gloucestershire—Lasborough Manor (Major and Mrs. C. A. Fisher), Owlpen Manor (Mr. F. E. Pagan), and Hodges, Shipton Moyne (Hon. Mrs. A. Strutt); *19th August*, Restrop House, Purton (Capt. Blakey), Hannington Manor (Mr. A. F. Hussey-Freke), and Highworth Church.

In addition four members led smaller groups on foot in tours of places of which they have special knowledge—Mr. Sandell at Potterne, Mr. Nicholson at Martin, Hants, Miss Vernon at Lacock, and the Meetings Secretary at Trowbridge.

At the end of his term of office the Meetings Secretary would like to record his appreciation of the patience of members in the periods of waiting which are difficult to avoid now that numbers attending meetings are so large, and of the efficient service of Mr. Candy of the Cedar Hotel, Westbury, and his staff in providing good teas, often despite poor facilities.

ACCESSIONS TO THE COUNTY RECORD OFFICE

FAMILY AND ESTATE

Bath (Thynne) of Longleat: all non-current records from the Longleat Estate Office, and all hitherto uncatalogued records from Longleat House, 14th–20th century.

Long of Sutton Veny: deeds, etc., Sutton Veny, 1563–1869, Amesbury, Bulford and Rodbourne Cheney, 1813–72; probates and accounts, 1757–1909.

Long of Trowbridge, etc.: grants of arms, 1545, 1561.

Queensberry (Douglas) of Amesbury: Amesbury estate accounts, 1778–1811; Amesbury turnpike letters and accounts, 1778–1810.

Warneford of Sevenhampton: deeds, Sevenhampton, Highworth, South Marston, Shrivenham, 1648–1857, etc.

MANORIAL

Castle Combe, 1565–1684.

MISCELLANEOUS DEEDS

c. 370, most parts of county, 1534–1910.

BOROUGH

The records of the borough of Devizes earlier in date than 1900.

EDUCATION

209 vols. of Education Committee minutes and school log books, together with photographs and plans of 288 schools, 19th and 20th century.

PARISH AND PARISH COUNCIL

Allington, 1920, 1928; Boscombe, 1907–28; Chicklade, 1721–1887; Cricklade, 1894–1962; Dilton Marsh, 1844–1947; Hilmarton, 1645–1959; Broad Hinton, 1627–1961; Ogbourne St. Andrew, 1538–1902; Tilshead, 1664–1927; Tisbury, 1563–1964; Wootton Bassett, 1809.

WILTSHIRE ASSOCIATION OF PARISH COUNCILS

Minutes, 1944–55.

WILTSHIRE EXECUTIVE COUNCIL

Minutes, County Insurance Committee, 1912–48.

SOCIETY

Marlborough and District Theatre Club minutes, 1951–61.

MAPS AND PLANS

Nettleton, 1802, 1839; Bury Blunsdon, e. 19th century.

ACCESSIONS TO THE DIOCESAN RECORD OFFICE

The Close, Salisbury

ALMSHOUSE

The records of St. Nicholas Hospital, Salisbury, consisting mainly of deeds, 16th and 17th centuries, of the Hospital's properties in Salisbury, Fisherton Anger, Broad Chalke, Harnham, etc., in Wiltshire, and Broad Hinton and Corfe Mullen in Dorset, but including a 15th-century cartulary.

PARISH

The records of St. Edmund's parish, Salisbury—registers from 1559, churchwardens' accounts from 15th century, and vestry minutes from 1630.

CHURCH COMMISSIONERS

A second large deposit of deeds and other estate records of the former ecclesiastical estates, including a number of 18th- and 19th-century estate maps.

ANNUAL GENERAL MEETING, 1968

THE ANNUAL GENERAL MEETING of the Society, covering the period 1st January to 31st December 1967, was held on the afternoon of Saturday, 25th May 1968, at the Town Hall, Devizes.

The day's programme started at 10.45 a.m. with a visit to Conock Manor, by kind permission of Mr. Bonar Sykes, after which the party went on to Urchfont Manor, at the invitation of the Warden, Dr. A. Slee, B.SC.(Econ.). Whilst this was going on the President, Dr. T. R. Thomson, was welcoming some specially invited guests to a preview of the new Iron Age Room in the Society's Museum. Dr. D. B. Harden, O.B.E., M.A., PH.D., F.S.A., F.M.A., Director of the London Museum, declared the Room officially open.

The President took the chair at the Annual General Meeting which was attended by 94 members.

The Treasurer reported that the overall position was somewhat better than the previous year, but in that year, there had been a substantial overprovision for the *Magazine* printing costs. This had resulted in the 1967 surplus of Income over Expenditure being inflated by some £380. Nevertheless, after allowing for this and also the fact that £150 had been transferred from the Current Account to the Building and Reserve Fund, the actual surplus was £507. During the year 85 new Deeds of Covenant had been signed, but the financial benefit would not be evident until 1968. He appealed to all members who were in a position to covenant their subscriptions to do so in order to offset the continually rising costs of heating, lighting, postage and telephone, also the increased insurance premium consequent upon the revaluation of the Society's premises and contents of the Museum and Library.

After the accounts had been adopted, the Meeting accepted the reports of officers, copies of which had been circulated to all present.

Dr. D. B. Harden was then called upon to address the Meeting in his dual capacity as Director of the London Museum and as a member of the Joint Committee set up by the Museums Association and the Carnegie United Kingdom Trust. He thought that the growth of the Society's Museum had been a remarkable achievement and it now enjoyed an international reputation. The recent curators had served the Society faithfully and well; the work of reorganization had been going forward apace. He looked forward to the time when he might be able to help with the Roman Room, which alone remained to be re-displayed. In thanking Dr. Harden, the President expressed the Society's sincere thanks to the Carnegie Trust, not only for the grant of £750 towards the Iron Age Room, but also for previous financial assistance.

The Meeting approved the Committee's recommendation that the penultimate paragraph of Rule III—*Members and their privileges*—should be redrafted as follows:

'Institutions admitted to membership shall each have a free copy of the *Magazine* and *Bulletin* as issued, and the right to nominate one member, who may vote at the Society's meetings, attend excursions and have access to the Museum and Library. Other members of such institutions may attend meetings and excursions by invitation and on payment of the necessary fees. They may also be granted access to the Museum and Library after prior arrangement with the Curator or Librarian.'

The following officers were elected to serve during the ensuing year: President, Dr. T. R. Thomson, M.A., M.D., F.S.A., F.R.HIST.S.; Hon. Librarian, R. E. Sandell, M.A., F.S.A., F.L.S.; Hon. Assistant Librarian, K. H. Rogers, B.A., F.S.A.; Hon. Editor, Isobel F. Smith, B.A., PH.D., F.S.A.; Hon. Meetings Secretary, J. K. Wayman.

Miss S. Rooke was elected to the Committee, and the Meeting accepted the Commit-

tee's recommendation that the Wiltshire Record Society be invited to nominate one ex-officio member to sit on the Committee.

A proposal by Mr. D. Grant King that steps be taken with a view to ensuring that the Society receives, in future, advance notification of any plans for road works through scheduled monuments was agreed in principle and referred to the Committee for appropriate action. This was followed by a suggestion from Mr. A. P. Voce that the Society might consider widening its scope to cover Industrial Archaeology throughout the county. This was accepted and it was recommended that Mr. Voce be invited to sit on the Archaeology Sub-Committee as an ex-officio member.

The President, after informing the Meeting that Professor R. J. C. Atkinson had kindly offered to conduct members over the Silbury Hill site in the late summer of 1969, declared the Meeting closed.

After tea a number of members visited the new Iron Age Room.

REVIEWS

Wessex, by P. J. Fowler, Pp. 88, 45 figs., frontispiece map. Heinemann Educational Books Ltd., 1967, 16s.

For this seventh volume in their Regional Archaeology series the publishers have been exceptionally fortunate in their choice of author. Mr. Fowler combines an intimate knowledge of the field archaeology of Wessex (here taken to comprise most of Dorset, Wiltshire, Hampshire and Berkshire) with a flair for choosing or devising effective illustrations. The generous allowance of line-drawings and half-tones has been devoted mainly to maps and to plans and photographs of monuments, settlements and field systems, and includes a good proportion of new or little known material. An excellent 11-page gazetteer gives comprehensive coverage of sites worth visiting, and the short bibliography is adequate for a book of this kind. There is a full list of museums containing material from the area. For these features alone the book would be well worth its modest price.

At a time when prehistoric studies in particular are in a state of flux the author's task of compressing the illustrations and narrative text, Palaeolithic to Sub-Roman, into 70 pages has been far from easy. Inevitably the treatment is somewhat uneven, and the archaeology of the time before *c.* 550 B.C. is handled with rather less assurance than that following this tentative date for the beginning of the Iron Age. Thus in the first half of the text there occur a number of things that might be amended when, it is to be hoped, the book reaches a second edition.

For example, can the term 'predecessors of man' (p. 10) be applied to the men who made hand-axes? Misconceptions about the wild or domesticated status of cattle and pigs and the importance of hunting in the Neolithic economy appear on pp. 17–18, and about the properties of lead as an alloy of bronze (not copper!) on p. 42. Avebury does not contain 'the only surviving stone circles in north Wessex' (p. 26), but rather the only upstanding ones; and the caption for fig. 24 erroneously refers to two flat axes in the group illustrated there. Issue must also be taken over the author's treatment of the question of a surviving Mesolithic population in the area after *c.* 4000 B.C. (p. 14 and time chart, fig. 2). This is currently one of the more vexing problems of the earlier prehistory of southern England, and the apparent gap of a millennium between the latest radiocarbon dates for Mesolithic sites and the earliest ones for Neolithic settlement may not be bridged by facile assumptions as to what is probable. If Mesolithic traditions do re-emerge towards the end of the Neolithic, a connection with a surviving *indigenous* Mesolithic population has still to be demonstrated.

There is a reasonably good index, misprints are few, and the book itself is attractively produced. It is unfortunate that the publishers have frustrated the author's intention (p. 40) of featuring Stonehenge on the dust-jacket; part of the mosaic pavement from Hinton St. Mary, printed in a repulsive pink, is a poor substitute.

But these are minor matters, far outweighed by the value of the book as an up-to-date and generally authoritative short guide to the archaeology of Wessex.

I. F. SMITH

Stonehenge of the Kings, by Patrick Crampton. Pp. 171, 28 pls., 6 figs. John Baker, 1967, 45s.

With this book, Mr. Crampton seems to have set out to apply the methods of C. W. Ceram and Geoffrey Bibby to the exposition of the Wessex Bronze Age of Britain. These

two writers have each made a fine contribution in their comprehensive popularizations of the development and results of archaeological research work.[1]

Unfortunately for the lay reader, Mr. Crampton refuses the unobtrusive narratory role adopted by Ceram while lacking the scholarly authority of a Bibby. The fact that he has often had his facts painstakingly checked is vitiated by the way he frequently mingles them with varying brands of speculation, highly elaborated theory and semi-mystical concepts. Typical is his talk of the 'cities', royal and drum-towered, of Stonehenge and Avebury and his casual pronouncement on population sizes (ranged between one and ten thousand) for these and his three other capitals of Early Bronze Age Wessex. Perhaps worse is his treatment of some of the interesting ideas suggested to J. R. C. Hamilton by his excavations at Clickhimin.[2] It is on the strength of his own embroidery and chronological transplantation of these ideas that Mr. Crampton makes bold to announce a new advance in archaeological thinking, 'a pyrotechnic rocket . . . dropping star-shells of light'.

In the early chapters of the book he takes on the guise of active roving reporter of the work of the specialists. To this end we are presented with a vigorous sprinkling of dramatic topographical descriptions, always viewed in conditions of remarkably vivid weather, a dash of face-to-face interviews with archaeologists of eminence and the occasional imaginary scene from the prehistoric past. However, as the book progresses he gradually abandons this reporting attitude and increasingly takes over the quest himself. Indeed, by the last chapter his love of the grand style has betrayed him into the pontifical tones of an established expert.

The turning point is his dramatized 'Revelation at Clickhimin'. After this his personal theories and thoughts begin to dominate. These are particularly concerned with the possible wholesale reinterpretation of pre-Iron Age circular structures and it is only fair to point out that his unorthodox and lay approach does achieve an occasional flash of insight, the odd, illuminatingly novel, twist of viewpoint or phrase. Succinctly put in a few paragraphs, they might have provided a refreshing, if highly disputable, interlude, but expounded lengthily over chapters they add to the disruption of the book. This odd mixture is further broken up by the injection of fairly unnecessary, rather uninspired chapters on topics such as language, myth (everything bar the White Goddess) and sea trade.

The final impression of this book is therefore of a misproportioned and poorly concocted production. Drastically pruned, it might at least have been lively—whereas unrevised it just seems overlong and irritatingly disjointed. But even then the very mixture of speculation, fancy and fact could only have served to confuse and mislead the lay reader for whom the book must have been originally intended. The author himself intermittently mentions the dangers of speculation, has evidently read a good deal of the most directly relevant learned literature and yet has ended by writing this book, that plods so doggedly behind the catchy title at its head. It closes with the words 'We sail on it into a suddenly unfolding world of Stonehenge Britain'. I cannot recommend the voyage.

ALAN BURCHARD

[1] For example: C. W. Ceram, *Gods, Graves and Scholars* (1952) and Geoffrey Bibby, *The Testimony of the Spade* (1957).

[2] For a very recent discussion of these, see: J. R. C. Hamilton, Iron Age Hillforts and Epic Literature, *Antiquity*, XLII (1968), 103–108.

Plants and Archaeology, by Geoffrey Dimbleby. Pp. 187, 23 pls., 6 figs. John Baker, 1967, 50s.

The two sections of our Society are here brought together on common ground. This book is of absorbing interest and should prove valuable to archaeologists, botanists and ecologists.

The first part explains the uses to which Mesolithic man put the wild plants which he found at his disposal. Food, of course, is the main consideration but no conceivable

aspect of the subject is neglected, even to a paragraph on musical instruments. Then follows an important chapter on the origins of agriculture with particular reference to the complex character of early cultivated wheats. It is interesting to learn that small spelt or cultivated einkorn (*Triticum monococcum*) which has been identified from the very earliest known agricultural sites in the Near East, and from pottery impressions at Neolithic Windmill Hill, is still grown as cattle fodder in parts of Europe.

The second part of the book starts with a discussion of the factors which may lead to the preservation of plant material. The structure of wood as seen in sections of charcoal is described and illustrated by diagrams and photographs. Pollen grains and fern spores are similarly treated in detail and other plant remains such as seeds, fruits and fibres, receive attention. Hints on the selection and collection of prehistoric plant material are given and much stress is laid on the theme that identifications should be made by experts only who have access to authentic reference specimens. Although the author does not say so, I believe that a difficulty lies in that as yet there are so few experts!

The last section of the work has an ecological flavour and shows that man's activities, particularly in forest clearance, have caused great vegetational changes and with them soil modifications. A final chapter has short references to radiocarbon dating, tree-ring dating and pollen analysis. The use of plant remains for dating purposes, although important, is of lesser interest than the inferences which can be drawn concerning the way of life and the activities of early man. Professor Dimbleby suggests that we are only at the beginning of this investigation and that future years will bring a great advance in archaeological knowledge through botanical channels.

The book is well illustrated with excellent photomicrographs. The style is lucid and flowing, enlivened by an occasional witticism.

DONALD GROSE

The Domesday Geography of South-West England, edited by H. C. Darby and R. Welldon Finn. Pp. 469, 95 figs. Cambridge University Press, 1967, 6 guineas.

This volume, the fifth in a projected series of seven under the general editorship of Professor Darby, deals with the five south-western counties of England. This series, of which the first volume was published as long ago as 1952, is by now well known and well established as a major contribution to Domesday studies. The plan of the present volume follows that of the earlier ones by according a chapter to each county and by summarizing the information for the whole region in a final chapter. Each county is presented to a standard plan, in so far as the variable nature of the record permits, and such of the information as may be rendered cartographically is presented in a series of maps. The latter are drawn to a common scale and, where possible, use a common set of symbols, thus facilitating comparisons within and between counties. Such a compilation is a truly formidable task when one considers the inaccuracies and inconsistencies within Domesday Book itself and especially the problem of interpreting the varied and generally obsolete units of measurement and assessment it contains. In an age when estimates and customary measures served rather than statute measures, the precision achieved in latter days by the Department of Inland Revenue and by the Ordnance Survey was unattainable and unsought; nor should it be sought or expected by us of Domesday Book. But, as Professor Darby has himself declared in an earlier volume, 'a picture of England based on the Domesday Book, while neither complete nor accurate in all its details, does reflect some of the major elements in the geography of the eleventh century. The broader features of the land utilization of the time emerge, and with those we must be content.'

The Wiltshire chapter, which is all that is considered here, is the work of the co-editor, Mr. Welldon Finn, a familiar figure among Domesday scholars. It follows the standard pattern by considering first, after a brief introductory statement, the Domesday settlements and their distribution. As an accompanying map shows, this distribution is much like that which exists today—essentially riverine in the chalklands and more generally dispersed

in the greensands, clays and limestones. As in earlier volumes, we have no means of knowing how the Domesday place-names have been identified, since no concordance with present-day place-names is included in the text; nor do the Domesday place-names (except those of the boroughs) appear on any map, the small scale precluding this. As Mr. Welldon Finn observes, there are some place-names which cannot be identified with certainty or which defy identification altogether, and he provides a list of just under a dozen names unidentified in his analysis. Most of these have defied other workers in this field, but it is not easy to see why he has included Cuvlestone (73) in this list. Held by Richard Sturmid, it surely refers to Cowesfield in Whiteparish (one of whose manors was later known as Cowesfield Esturmy), an identification aided by the Geld Rolls for Frustfield Hundred, within which Cowesfield lies.

The habit, fairly generally followed in this series, of treating two or more identical or nearly identical place-names as one certainly evades the problem of deciding whether or not more than one geographically distinct settlement is involved. In many instances it is the wisest course, but at times, perhaps, it leads to undue caution. The two holdings in Domesday Book named Ovretone, which Mr. Welldon Finn cites as an example of this problem, are almost certainly the later East and West Overton. They were held by the Bishop of Winchester and the Abbey of Wilton respectively, the holders of East and West Overton throughout the Middle Ages.

In a consideration of the distribution of prosperity and population in Domesday Wiltshire the author places most reliance on the information obtained from plough-teams and population. These indicate the most densely populated and richest areas to have been in the lower valley of the Bristol Avon, the Vale of Pewsey, and the valley of the Salisbury Avon. The areas with densities well below average for the county were the forest areas, still in process of being colonized. The largely artificial nature of assessments for geld and of values given in Domesday Book are shown to be of little worth in any attempt to assess the distribution of prosperity. Since a section has been included on plough-lands (or team-lands as they are often called today), it would have been interesting to have had the authors' views on the recently expressed opinion of Mr. J. S. Moore (*Trans. Roy. Hist. Soc.*, 5th ser., 14 (1964), 109–30) that the team-lands represent the actual area under cultivation at the time, not the potentially cultivable area as has more often been supposed.

Further sections deal with the information for woodland, meadow, pasture, mills, churches and urban life, all of which raise numerous points that cannot be considered here. In all, this is a fascinating volume which maintains the high standards, both of analysis and cartography, set by its predecessors. Those students of Domesday Book and of the historical geography of South-Western England who brave the high price are unlikely to be disappointed. It is scarcely necessary to add that the layout is well up to the very high standards that one expects and gets from the Cambridge University Press.

D. J. BONNEY

The Herberts of Wilton, by Tresham Lever. Pp. 270, 14 pls., and ped. John Murray, 1967, 42s.

From Gilbert FitzGilbert (de Clare) to Edward Plantaganet there were 20 earls of Pembroke before the creation in 1553 of the Wilton Earldom.

The first Herbert earldom lasted but 23 years and the origin of the first earl was an unimportant Welsh family of many patronymics. A grandson, courtier of Henry VIII, was the grantee of Wilton Abbey ('Go spin thou jade'). From him in the male line descend 15 holders, the earldom today ranking tenth among all earls, excepting Royal earldoms and a few held by dukes and marquesses. The first earl was a supporter of Warwick, but deserted him (Northumberland) after his support of Lady Jane Grey, and declared for Mary. He married a sister of Queen Katherine Parr, and later supported Cecil and the protestant party under Elizabeth until his death in 1570.

The second earl married, as his third wife, Mary, sister of Sir Philip Sidney, of whom William Browne of 'Britannia's Pastorals' wrote the famous lines:

> Underneath this sable Herse
> Lyes the subject of all verse,
> Sydneyes Sister, Pembroke's mother
> Death, ere thou hast slaine another
> Faire and Learn'd and good as she
> Tyme shall throw a dart at thee.

The fifth chapter gives an interesting account of 'The Incomparable Pair of Brethren', William, third earl, and Philip, created Earl of Montgomery, who succeeded as fourth earl. The author does not mention that Pembroke College, Oxford, was named after William who was Chancellor of the University from 1617.

Henry, ninth earl, was 'the architect earl', and his life should be well noted in reading Christopher Hussey's description of Wilton. He was a Fellow of the Royal Society. His grandson George, eleventh earl, was a distinguished soldier and a great improver of the family estates.

George's son Sidney was a character of great interest. Readers of Mrs. Woodham Smith's book will remember his friendship with, and active sympathy for, Florence Nightingale. He died in 1861 having lived a life of conscientious struggle for good causes. He was created Lord Herbert of Lea. Sidney's son, the thirteenth earl, was co-author with Charles Kingsley's brother of *South Sea Bubbles*, perhaps the most delightful travel book in the English language.

Those who know Sir Tresham Lever's works on Peel and Pitt recognize his great gift, especially in dealing with the personalities of the 18th century. All interested in the connections between politics and family alliances (and aversions) will find this book a great illumination.

The appearance of the chart pedigree is spoiled by over-heavy and clumsily arranged rules, but the book is well produced and handles well. I have noticed but one misprint, and that a Greek word. It is notable that no armory appears—an unusual omission in a Family History.

T.R.T.

OBITUARY

Alfred Shaw Mellor, M.A., M.B., B.C., M.R.C.S., L.R.C.P., who died on 9th July 1967, aged 91, was the second son of the Rt. Hon. Sir James Robert Mellor, King's Remembrancer and Registrar of the Court of Criminal Appeal. He was born on 24th December 1875, and was educated at Charterhouse, King's College, Cambridge, and St. Bartholomew's Hospital. He served with the R.A.M.C. during the 1914-18 War. In 1922 he gave up his practice in London and settled in Box. Soon afterwards he became a member of the Wiltshire Archaeological and Natural History Society, and hardly a year passed thereafter when the Society did not receive a gift from his hand, either for its Museum or for its Library, and between 1930 and 1954 he contributed some 20 notes or longer articles to its *Magazine*, chiefly on local history and the excavations of Roman sites at Atworth and Colerne which he had undertaken.

Dr. Shaw Mellor became a member of the Calne and Chippenham Rural District Council in 1925 and a member of the County Council in 1931. In 1946 he was elected Chairman of the District Council and an Alderman of the County. In the same year he joined the County Records Committee, of which he became Chairman in 1949 on the death of Col. R. W. Awdry. A man of wide interests and a keen and conscientious Chairman, he gave generously of his time to the County Record Office, and missed only two meetings of the Committee between 1949 and 1961 when he retired from the County Council.

NATURAL HISTORY SECTION

THE WEATHER OF 1967

by T. E. ROGERS

Month	*Temperature*	*Rainfall*	*Sunshine*
January	+	—	o
February	+ +	+	o
March	+ +	o	+
April	o	—	—
May	o	+ +	o
June	o	o	+
July	+ +	—	+
August	o	—	o
September	o	+ +	— —
October	+ +	+ + +	o
November	— —	—	+
December	o	o	o
Totals for 1967 ..	48.5° F.	35.85 inches	1,437 hours
Yearly average figures (Marlborough ..	47.8° F.	32.84 inches	1,426 hours

N.B. In all three columns: o signifies 'average'; — means 'distinctly below average'; — — means 'very much below average'. The + and + + signs have comparable positive meanings.

In many respects 1967 was a remarkably unexceptional year for weather. This was particularly true with regard to the mean temperatures and the sunshine data, but even in the case of rainfall the total was no more than 10 per cent. above normal.

The year began dry, sunny and generally warm. It is true that the period from mid-February to mid-March was characterized by a strong and turbulent south-westerly air-stream (the highest confirmed wind-speed in the British Isles, 145 m.p.h., was recorded in the Cairngorms on 6th March), but the relatively high temperatures and the absence of significant snowfall made this a rather clement winter.

April was an unsettled month, but May, heralded in by a rather cold three days, proved to be rather wet. The rainfall total of 4.91 inches, over twice the average figure for Marlborough, illustrates that May 1967 afforded but a dismal start to the cricket season. However, at the end of the month the rain clouds miraculously disappeared and the next three weeks were amongst the pleasantest of the summer, with about 200 hours of sunshine and only a trace of rain. Indeed, although the week-end of 23rd–25th June provided a storm which accounted for virtually all the 1.88 inches of rain recorded in June, this was no more than a rude interruption, for July was also sunnier than usual, the maximum temperature for the year (81° F.) being recorded on the 17th.

An undistinguished August was followed by a distinctly wet September and an even

wetter October. Measurable falls were recorded on no less than 42 days between 1st September and 31st October, giving a total for these two months of 10.87 inches compared to the average over the last 103 years of 6.19 inches. The first five days of November provided a further 1.86 inches for the rain-gauges, but thereafter the weather improved considerably, becoming much drier, with cool, sunny days and clear, frosty nights. This spell continued into December, but although falls of snow on the 10th and 17th seemed to presage a white Christmas it was not to be. On the 18th the winds shifted to the south-west, giving damp, mild conditions which persisted for the rest of the year. Christmas Day, with 0.31 inches of rain, was in fact the wettest for four years.

WILTSHIRE BIRD NOTES FOR 1967

RECORDERS: G. L. Webber, G. L. Boyle, M.B.O.U., C. J. Bridgman, M.B.O.U.
Dr. E. A. R. Ennion, M.A., M.B.O.U., and Ruth Barnes, M.B.O.U.

I would like to take this opportunity of thanking Mrs. Barnes for her services as editor of these notes for the past 21 years and her generous help to me in preparing this report.

Highlights of the year were the third records for the county of the Long-tailed Duck and Grey Lag Goose; there were a pair of the latter and they may possibly have been escapes. The Ospreys were the third and fourth recorded this century and the White Stork is an extremely rare visitor.

Contributors:

T. Andrews	TA	Col. J. Kirkaldy	JK
Mrs. R. Barnes	RGB	Maj. O. Kite	OK
G. L. Boyle	GLB	Mrs. V. Lawson	VL
C. J. Bridgman	CJB	J. R. Lawson	JRL
Mrs. V. E. Brown	VEB	R. F. Lee	RFL
Mrs. J. S. Beale	JSB	Miss M. K. Luckham	MKL
E. J. M. Buxton	EJMB	J. E. Major	JEM
D. E. D. Campbell	DC	Marlborough College Natural History Society	MCNHS
P. J. Chadwick	PJC	Mrs. P. W. Morris	PWM
J. G. Cookson	JGC	Brig. J. R. I. Platt	JRIP
R. M. Curber	RMC	C. M. S. Randall	CMSR
C. A. Cutworth	CAC	Countess of Radnor	IR
Dr. E. A. R. Ennion	EARE	C. Rice	CR
Capt. H. E. Ennion	HEE	J. C. Rolls	JCR
F. P. Errington	FPE	A. J. Rycroft	AJR
R. C. Faulkner	RCF	A. Smith	AS
Dr. D. E. Fry	DEF	L. F. Stearn	LFS
R. G. Frankum	RGF	S. Shepperson	SS
Mrs. K. G. Forbes	KGF	B. M. Stratton	BMS
D. W. Free	DWF	C. N. Tilley	CNT
G. H. Forster	GHF	J. L. A. Tyler	JLAT
Mrs. C. M. Forster	CMF	Miss D. M. Wear	DMW
Mrs. I. R. Gandy	IRG	G. L. Webber	GLW
Miss B. Gillam	BG	R. Whitlock	RW
G. W. Hemmings	GWH	M. A. Wright	MAW
J. A. Higginbottom	JAH	I. W. Young	IWY
A. J. Horner	AJH		
Mrs. B. M. Hulbert	BMH		
R. J. J. Hunt	RJJH		
Brig. S. P. M. Kent	SPMK		

Abbreviations:
Gravel Pit, G.P.
Sewage Farm, S.F.

5. **Great Crested Grebe**. From 10 pairs only 5 young were reared at Coate Water and all of these from late attempts (GLW); 2 pairs reared 3 young at Corsham

Lake (JCR). At least 4 young were present at Shearwater (VB), and a further 9 at Bowood Lake (BG). Although 2 pairs were present at Braydon Pond no young were seen (RGB).

7. **Slavonian Grebe**. One seen on River Avon in centre of Salisbury, 4th March (DEF, AJH); present for several weeks and seen by many observers.

9. **Little Grebe**. Recorded from most waters in the county including canals and rivers. Breeding attempted at Coate Water but nest destroyed, no other breeding records received.

16. **Manx Shearwater**. One found on air-field at Colerne 4th September had been ringed as a pullus at Skokholm earlier in the year. On 17th September one was given to GLW; it had been found at Lyneham the previous day. After being fed on strips of herring it was released at Coate Water where it flew off strongly.

28. **Cormorant**. Only one record, a bird in flight near Longford 17th December (MKL).

30. **Heron**. Total number of occupied nests 72; this a slight increase over the average for the past few years. Major sites were: Great Bradford Wood, 18; Bowood Park 17; Britford, 12; Bathampton House, 10. Two new sites reported: a solitary nest in a small copse near River Ebble (OK); two nests in Colerne Park (RCF).

38. **Bittern**. One flushed from reeds at Lacock GP, 10th August (JCR).

40. **White Stork**. A bird of this species reported to *British Birds* as being present at Upavon on 27th April. It was accepted by the Rarities Committee (M. S. Witherow).

45. **Mallard**. Maximum numbers: Coate Water, *c.* 400, 7th September; Queens Park, Swindon, *c.* 275, 15th January (GLW); Corsham Lake, *c.* 494, 22nd September (JCR); Braydon Pond, *c.* 100, 16th August (RGB); Stourton, *c.* 75, 4th January (SS). A nest with 9 eggs at Cole Park, 16th November, quite a late date (EJMB). Numerous breeding records.

46. **Teal**. Maximum numbers: Coate Water, *c.* 40, 8th January, numbers have been falling steadily at this site for several years (GLW); Corsham Lake, 13, 19th January (JCR); Ramsbury Manor, 7, 7th January (VL). Recorded in ones and twos from several other waters.

47. **Garganey**. Only one record this year, a male on flood water near Chitterne, 19th–24th March (SPMK).

49. **Gadwall**. Rather more records than usual. Fonthill Lake, 6 pairs, 18th January (LFS); 5, 2nd February (VEB); 8, 28th November (GLB); 16, 14th December (BMS); Corsham Lake, one, 14th–17th January (JCR).

50. **Wigeon**. Recorded in ones and twos from several waters and a flock of *c.* 50 at Clarendon Lake, 18th February (DEF, AJM).

52. **Pintail**. An adult male on ice at Coate Water, 6th January (GLW).

53. **Shoveler**. At Coate Water, a pair 2nd April and single birds 12th August, 15th October (GLW). A pair at Chitterne, 19th November (SPMK). Single birds at Corsham Lake, 16th–18th April (JCR); Wilton Water, 19th November (JRL);

Clarendon Lake, 18th February (DEF, AJH). A female present at Cole Park, 16th–31st October (EJMB).

56. **Tufted Duck**. This species visits most waters in the county usually in small numbers. Maximum numbers: Fonthill Lake *c.* 200, 17th January (LFS); *c.* 67, 29th January (GLB); Chilton Foliat, *c.* 80, 26th January (MCNHS); Braydon Pond, 23, 24th December (RGB).

57. **Pochard**. Less common than preceding species. Maximum numbers: 46, Coate Water, 4th February (GLW); Corsham Lake, 31, 30th December (JCR); Braydon Pond, *c.* 85, 24th December (RGB); Fonthill Lake, 20, 6th November (BMS).

60. **Goldeneye**. A pair at Longford, 4th March (IR). Solitary first winter birds at Coate Water, 15th December (GLW) and at Fonthill Lake, 29th January (GLB).

61. **Long-tailed Duck.** A first winter male seen at Corsham Lake, 2nd December (JCR); it was still present early in 1968. This would seem to be only the third definite record for the county.

64. **Common Scoter**. A party of 11, 4 males and 7 females, at Coate Water, 11th July (GLW). Seen later the same day by IWY. This was a most unusual date and a very large party for an inland water. The males appeared to be in full adult plumage.

73. **Shelduck**. Three at Coate Water, 14th March (IWY) and a pair there 14th April (GLW).

75. **Grey Lag Goose**. A pair were seen in a meadow near Fonthill Lake on 14th–16th March (LFS). Enquiries were made at Slimbridge and other collections but no birds were known to be missing.

76. **White-fronted Goose.** Two skeins seen in the Swindon area: 14 on 7th January flying west at a good height, identified by calls; 7 on 8th January flying much lower and white foreheads, barred underparts of adults clearly seen (GLW).

82. **Canada Goose**. Present at Wilton Water throughout the year, maximum recorded there 17, 30th December (HEE). Single birds at Corsham Lake, 19th October–31st December (JCR); Bowood Lake, 15th October (BG).

84. **Mute Swan**. Twenty-two at Lacock G.P. on 31st May (JCR).

86. **Bewick's Swan**. Three in flight Devizes, 11th February, call notes heard (BG); one at Fonthill Lake, early in November, bill described and call note heard (BMS).

91. **Buzzard**. Recorded from many areas during the year, most frequently in late summer. There were 3 breeding records and 3 young known to have fledged.

92. **Rough-legged Buzzard**. One of the large influx that over-wintered in this country was seen at Weavern on 7th and 19th March. A very full description supplied (RCF).

93. **Sparrow Hawk**. This species would seem to have increased; there were 34 sightings and four observers stated that birds were seen frequently in their areas.

Harrier Species. One in flight, a ring tail at Chute on 17th September (JGC); one at Houndswood, 23rd July, probably a Montagu's (RW).

100. **Hen Harrier**. A female seen in Netheravon area during January and February (OK); what may have been the same bird at Everleigh, 30th March (GLB); a ring tail seen near Imber on 18th March (JNK).

102. **Montagu's Harrier**. A female seen in flight at Haxton Down 6th August and another female near Tilshead (PJC, MAW); a ring tail seen near Netheravon, 22nd August (GHF).

103. **Osprey**. One present on the River Wylye in mid-May, seen to catch a grayling which it abandoned when mobbed by Corvids. Reported by the Messrs. Thatcher who farm in the area and Mrs. J. Willan. What appeared to be a sub-adult seen at Braydon Pond on 18th September (GLW, IWY). This bird was first reported on the 17th by Mr. Blount of Lyneham.

104. **Hobby**. First reported 28th April (JNK). Single birds were seen at Berwick St. James, 28th May (DC); Clarendon, 1st June (RW); Cole Park, 5th and 14th June (EJMB); Porton, 18th June (GHF); Hannington, 1st July (OK); Longford, 3rd July (IR); Corsham, 1st August; Christian Malford, 9th August (JCR); Winterbourne, 21st August; Woodford, 25th August (DEF, AJH). At Coate Water one took a Swallow from a party preparing to roost 7th September (GLW). Only 4 nests reported this year and two of the these were robbed.

105. **Peregrine**. What was probably an adult male plucking a Common Gull near Casterley Camp was watched at close range from the A.435, the observers being in a car. The bird was disturbed by a gunshot but quickly returned and continued plucking the headless carcase, 26th March (IWY). One seen several times at Britford water meadows in early May (DC). One in flight at Boscombe Down, 12th September (GHF). Solitary birds also seen again near Boscombe Down, 8th November, and at Larkhill ranges, 5th December (DEF, AJH).

107. **Merlin**. A female in flight at Shalbourne, 13th January (HEE). One pursuing a small bird at Winterslow, 19th February (RW) and again on 26th February (GHF). A male at Corsham on 28th February (JCR). One in flight along Smeathes Ridge, 29th October (GLW).

110. **Kestrel**. A great number of records received, seen in all parts of the county, and in a few places could be described as common. There were 8 definite breeding records from which 8 young certainly flew. In addition 5 other nesting sites may have produced young.

115. **Red-legged Partridge**. One calling near Landford, 21st March (RJJH). Seen at Haxton Down, 24th March (PJC, MAW). A pair at Clarendon, 13th May, and a male calling near Hindon, 10th June (JEM). One at Upavon, 20th August (PJC, MAW).

116. **Partridge**. All records were of small coveys and it would seem that the species is still below its old numbers. A melanistic bird recorded near Winterslow, mid-July (RW).

117. **Quail.** Fewer records than in the last few years. First heard calling Dean Bottom, 13th May, and again there on 27th May (MCNHS). Calling heard near Horton, Kitchen Barrow Hill and Great Yews during July (BG). Also heard near Tilshead 2nd July (RCF, JCR). On 16th August a solitary bird flushed whilst harvesting barley at Shaw (CAC).

Bob White Quail. A male present in the Roundway area from 30th May until 1st June. It was probably one of a number released at Avon earlier in the year (BG).

118. **Pheasant**. One alighted on thin ice at Corsham Lake, breaking through. The bird was forced to swim some 30 yards to the bank (JCR).

120. **Water Rail**. Majority of records were for the period October–March, but 1 seen at Bowood Lake on the 30th June (BG). Other records as follows: up to 3 present at Corsham Lake in all the winter months (JCR, GWH); Marlborough S.F., 2 on 28th January (MCNHS); single birds at Upavon, 13th February (SPMK); Coate Water, 12 March (IWY); Bowood Lake, 12 March (BG); Corsham Lake, 9th April (CR); Durrington, 4th October (JNK); Longford, 17th December (MKL); Coate Water, 24th December (GLW), and 1 throughout the winter at West Amesbury (OK).

125. **Corncrake**. One calling repeatedly during late May and early June, near Corsham (JCR). Solitary bird flushed from barley near West Woods, 21st August (CAC). One seen crossing the Aldbourne to Ogbourne road, 1st October (GLW).

126. **Moorhen**. Two counts at Corsham Lake totalled 70 on 5th January and 69 on 26th December (JCR).

127. **Coot**. A count at Braydon Pond on 24th December totalled *c.* 340; the observer commented that this was the highest number she had ever recorded there (RGB). One seen on the moat at Cole Park; this only the second time there in 12 years (EJMB).

133. **Lapwing**. Winter flocks were rather larger than in 1966. The largest was *c.* 7,000 birds spread over downland south of Wroughton on 12th November (GLW); *c.* 1,000 were seen at Wilsford 29th October (JCR). A considerable movement noted at Upavon on 8th January, the birds were moving south in flocks of 30/50 (SPMK).

135. **Little Ringed Plover**. Two juveniles at Swindon S.F., call note heard and in flight absence of wing bar noted, 3rd August; one still present on 5th August (GLW).

140. **Golden Plover**. Maximum numbers noted: *c.* 350 near Laverstock, 25th February (RW); *c.* 250, Blackland, 7th December (BG). Several smaller flocks seen as follows: Marden Field, *c.* 40, 3rd October (AJR); Hackpen, *c.* 40, 24th September (GLW); Old Sarum, 49, 30th November (OK).

145. **Snipe.** Numbers very much decreased in the Swindon area, largest flock seen 17 at the S.F., 28th August and 2nd September (GLW, IWY). No breeding records received.

147. **Jack Snipe**. Very few reported, up to 2 seen at Lacock G.P., during January and February (JCR). One at Upavon on two occasions, 18th February, 7th March (SPMK).

148. **Woodcock**. Reported as breeding in three localities and several seen in Grovely Woods during May and June (DC). One seen at Coate Water in January, the first recorded there (GLW).

150. **Curlew**. Birds were reported present at all the known breeding sites. A pair were seen in the Lacock area but no evidence of breeding (JCR). Two present during the breeding season near Bishopstone (GLW).

154. **Black-tailed Godwit**. A solitary bird was present near Chitterne, from 24th–28th March, description supplied (SPMK). A pair were seen in a suitable breeding locality in June; details are not being published in case the birds return in 1968.

156. **Green Sandpiper**. Present in the Britford area throughout the year with the exception of May and June (DC). One at Braydon Pond, 9th April (RGB). One at Shalbourne cress beds, 30th June, present there in ones and twos until early autumn (EARE). Seen at Swindon S.F. from 30th July until end of year; maximum numbers; 5 on 10th August; 6 on 4th September. One at Lacock G.P., 10th–23rd August (JCR).

159. **Common Sandpiper**. Spring passage first noted at Hilperton Marsh on 21st April (GLB); Coate Water, 22nd April (GLW). With the exception of May, birds were seen at Coate Water or Swindon S.F. until 21st September (GLW). Few autumn passage records and numbers appeared lower than usual.

161. **Redshank**. Only 1 definite breeding record this year, at Clatford, where 4 young reared (MCNHS). Breeding suspected at Britford (DC). Other records: 4 at Shalbourne (EARE); up to 6 at Chitterne between 19th March and 9th April (SPMK); two at Netheravon 10th December (OK).

162. **Spotted Redshank**. Two present at Swindon S.F. 10th September (GLW).

165. **Greenshank**. One in flight Wilts./Glos. border near Cerney Wick, 29th August (GLW); 1 at Longford, 8th September (IR).

178. **Dunlin**. One at Swindon S.F. on 17th September (IWY); 1 in marshy field at Winterbourne, 15th January (PWM).

184. **Ruff**. On 20th and 28th March, a bird possibly of this species was seen near Chitterne; at the same place 4 were satisfactorily identified on 2nd April and 3 of these were still present on 9th April (SPMK).

189. **Stone Curlew**. Fewer records received this year. First seen at Pitton, 16th March (RW); Lavington, 30th March (JNK). Other sight records: Wilsford, 15th April (AJR); Upavon, 7th April and 6th May (SPMK); Preshute, 17th May (MCNHS); Dinton and Chisbury Camp during May (DC). Four pairs known to have bred.

198. **Great Black-backed Gull**. The only records received were from the northern half of the county. Two seen at Yatesbury, 12th February; 1 at Ramsbury, 21st February; 1 at Overton, 16th March; 2 at Thorn Hill, 21st March (MCHNS). A solitary adult at Swindon S.F., 7th October (GLW).

199. **Lesser Black-backed Gull**. Recorded throughout the year with the exception of November. Maximum numbers: 93 at Worton, 30th January (JCR); *c.* 50 at Horton, 26th January (BG); *c.* 30 at Swindon, 23rd July (GLW); *c.* 20 at Great Cheverell, 27th March (HEE); 15 at Lacock G.P., 28th January (JCR).

200. **Herring Gull**. Rather more records than usual, the majority from the north of the county. Maximum numbers: *c.* 140 at Christian Malford, 6th August; *c.* 60 at Lacock, 28th January (JCR); *c.* 30 at Trowbridge, 28th October (SS). Birds were seen in smaller numbers at several other localities.

201. **Common Gull**. Recorded throughout the year with exception of June; good

numbers in winter especially in the Swindon and north-western areas of the county. Regular flight lines used to and from the roost on the Severn estuary. *c.* 300 noted at North Wraxall, 4th December (JCR). Flocks of 50+ seen regularly on playing fields and other open spaces in the Swindon district (GLW).

208. **Black-headed Gull**. Wintering birds still maintaining their high numbers of the past few years in the Swindon area. This may be due to the increasing amount of open water to the north where new gravel pits are creating safe resting places. Maximum numbers: *c.* 240 at Corsham Lake, 30th December (JCR).

212. **Black Tern**. Only records were of solitary birds and all of these on autumn passage; 1 at Coate Water on 11th August, and 1 again on 7th September (GLW); 1 at Corsham Lake on 2nd August, and 1 on 2nd September (JCR).

217. **Common Tern**. One found dead in Chippenham, 19th October (CR).

Tern/Species. A total of 10 recorded at Corsham Lake, 6 on 6th September, the remainder in ones and twos from 5th–13th October. Most of these were probably Common Terns (JCR). A single bird in flight near Seagry, 10th September (per RGB).

235. **Turtle Dove**. First noted: Farley, 30th April (RW); Fonthill, 1st May (JEM). *c.* 30 seen on telegraph wires and farm buildings near Horton, 1st June and 9th July (BG). Only one late record, a single bird near Hullavington, 8th October (RFL).

Collared Dove. More records were received for this species than any other on the list and after a slow start the county is now rapidly being colonized. It would seem that it now occurs in all the towns and most of the larger villages, probably breeding in all of these. It was recorded for the first time in the Malmesbury area this year (EJMB). A flock of 50+ noted at Idmiston, on 17th December (GHF). *c.* 60 seen at Poulton Farm east of Marlborough on several occasions during the late winter months (MCNHS). Seen feeding on spilt grain at the road transport depot in Marlborough; this is a typical habit of the species (DWF).

237. **Cuckoo**. First noted: Trowbridge, 4th April (SS); Chippenham, 6th April (JLAT). An abandoned nestling was hand-reared at East Knoyle (BMS). From the number of observations received it would seem that the species was slightly more abundant than usual. No late dates received.

241. **Barn Owl**. Most records were of single birds and were widely spread over the county. There were 7 breeding records with at least 20 young being reared. Three found dead in circumstances that suggested they had been poisoned.

246. **Little Owl**. A sprinkling of sight records and of birds calling but no breeding information received.

247. **Tawny Owl**. Reported from most parts of the county and a total of 10 breeding records received, from which at least 8 young were reared.

248. **Long-eared Owl**. Only 2 reports, 1 of a successful nest in the centre of the county. The other of a pair at a site in the north of the county.

249. **Short-eared Owl**. Breeding again reported at the site used in 1964; this is only the second record for the county. Sight records numerous, especially on the Marlborough

Downs: 12 were seen along Smeathes Ridge on 4th February and 4 still there on 16th March (MCNHS). Two on Russley Down, 13th January (ICG); seen regularly near Everleigh during March (GLB). One at Upavon on 2nd April (SPMK).

252. **Nightjar**. Only 3 reports: heard in Bentley Wood, 12th May (GHF); several churring near Pitton, 12th June (DC); 5 in Savernake Forest, 3rd June.

255. **Swift**. First seen: Coate Water (GLW), Durnford (DEF), on 22nd April. Other early dates: Chippenham, 27th April (CR); Melksham, 27th April (SS); Pitton, 29th April (RW). Young on the wing in Swindon, 13th July (GLW). Some late dates were: Stanton St. Bernard, 26th August (BG); Salisbury, 26th August (GLW); Upavon, 12th September (BG).

258. **Kingfisher**. There were 18 sight records, mainly of single birds, although 5 pairs were known to have bred. Two pairs reared young.

262. **Green Woodpecker**. Most records of solitary birds and the species does not seem to have recovered from the effects of the 1962–63 winteer. A pair bred at Fyfield (MCNHS).

264. **Great Spotted Woodpecker**. This species also does not appear to have fully recovered its numbers; there were 13 sight records and only 4 breeding pairs reported.

265. **Lesser Spotted Woodpecker**. There were 6 sight records and possible breeding pairs at Marlborough (DWF), Devizes (AJR). An adult watched feeding a juvenile near Chippenham 21st June (JSB).

274. **Swallow**. First seen at Cerney Wick, 25th March (GLW); Longbridge Dererill, 28th March (BMS); Chitterne, 29th March (JNK). No apparent drop in numbers reported. Two roosts with *c.* 400 birds in each were noted, one at Christian Malford, the other at Coate Water (JCR, GLW). The Belgian ringed bird was again retrapped at Woodford where it was breeding. Late dates: Winterslow, 21st October (RW); Chippenham, 22nd October (JLAT); Trowbridge, 28th October (SS).

276. **House Martin**. One seen at Odstock on 5th March, an exceptionally early date (DMW). At Coate Water, 14th April (GLW); Corsham, 17th April (JCR); Shaw, 19th April (CAC). Last seen at Coate Water, 29th October (GLW) and at Wilton (BMH).

277. **Sand Martin**. Early dates: Chitterne, 20th March (SPMK); Ashton Keynes, 25th March (GLW); Lacock, 27th March (JCR). *c.* 100 at Coate Water, on 15th April (GLW). Last seen at Lacock G.P., on 4th October (JCR).

279. **Raven**. Two in flight at Maiden Bradley, 15th March (JCCO).

280. **Carrion Crow**. A flock of 32 at Lacock G.P., 1st April (JCR).

283. **Jackdaw**. A bird of a general pale grey colour seen with normally plumaged birds at the Lord Weymouth School (VEB).

284. **Magpie**. Increase noted in the Trowbridge area (AS).

289. **Blue Tit**. There appeared to be a considerable influx into the Swindon area in

December; quite a number of long winged birds were trapped that might have been of continental origin (GLW).

293. **Willow Tit**. Present in the Semley area during the breeding season and at least one brood reared (JEM, BMS). Also noted at Coate, Ogbourne and Barbury (GLW); Breech Hill (MAW); Fonthill (GLB); Shalbourne (HEE); Savernake (BG).

294. **Long-tailed Tit**. Recorded thinly over the county, large parties of *c.* 25 and 15 seen at Steeple Ashton (SS). Only 3 breeding records.

299. **Wren**. A bird with unusual song at Coate Water; the pattern of song was normal but the tone was extremely harsh, recalling the harder elements of the Sedge Warber's song (GLW).

300. **Dipper**. Seen regularly in Fonthill Bishop (MKL, LFS); also at Freshford (SS). Other sight records: Berwick St. Leonards (LFS); Weavern (GW); Quidhampton (DC).

301. **Mistle Thrush**. *c.* 40 Chirton Down, 2nd July (BG); *c.* 40 Hippenscombe, 5th November (GLW).

302. **Fieldfare**. Last seen in spring: *c.* 250, Hackpen, 20th April (CMSR); *c.* 30, Coate Water, 22nd April (GLW); *c.* 150, Chippenham, 26th April (TA). Early autumn dates: *c.* 20, Devil's Den, 21st October (MCNHS); *c.* 30, Upavon, 28th October (SPMK); *c.* 100, Tilshead, 1st November (GLB). Only 2 large flocks were reported: *c.* 500, Stanton Park, 12th February (CR); *c.* 400 Barbury, 5th February (GLW).

304. **Redwing**. Last seen in spring: several at Draycot Foliat, 19th March (MCNHS); Lacock G.P., 1st April (JCR); Hackpen, 9th April (CR). Early autumn dates: Winterslow, 9th October (RW); Marlborough, 10th October (MCNHS); some night passage in Swindon on 19th October (GLW). Heavy diurnal passage on 8th December; several thousand birds passed over Swindon during the morning. This followed moderate snowfall on the previous day (GLW).

307. **Ring Ouzel**. Two males and a female at Wroughton, 26th March (GLW) and 3 males at Hippenscombe the same day (HEE). One seen at Crooked Soley, 29th April (RGF). There was 1 autumn record, a solitary male at Fyfield, 17th September (MCNHS).

311. **Wheatear**. First seen: Fyfield Down, 16th March (MCNHS); Great Durnford, 19th March (GHF). One breeding record only. Last date: Wroughton, 24th September (GLW).

317. **Stonechat**. There were no records during the breeding season; the following sight records are fewer than usual. Seen regularly at Barton Down during February and March (MCNHS). Two at Clatford Bottom, 21st October (MCNHS); 3 at Redhorn Hill 22nd October (JCR); at least 4 at Swindon S.F., 7th October (IWY). An adult male on several occasions near Four Mile Clump, late February and early March (MCNHS, GLW).

318. **Whinchat**. Only records were of passage birds, the first at Clatford Bottom, 30th April (MCNHS) and Biddestone on 4th May (CR). Autumn records: at least 8 in barley at Upavon, 1st August (SPMK); single birds at Swindon S.F., 13th August,

and 3rd September (GLW); Stanley, 8th September (BG). At least 7 in Clatford Bottom, 17th September (MCNHS).

320. **Redstart**. First noted Coate Water, 21st April (GLW); Roundway 23rd April (BG). Several breeding records reported; at one site the nesting hole used for the fifth year in succession. Last seen: Roundway Park, 9th September (BG); Savernake, 19th September (CNT).

322. **Nightingale**. First heard at Naish Hill, 16th April (TA); Pitton, 20th April (RW). Slightly fewer records than usual. Latest record: 1 trapped at Christian Malford, 19th August (JCR).

327. **Grasshopper Warbler**. First noted: at Winterbourne (DEF, AJH); 1 trapped at Pewsham (JLAT); both on the 22nd April. During the breeding season, song heard at 13 separate localities and 2 nests found. Young definitely fledged from a nest at Semley (JEM). Latest record: 1 trapped at Christian Malford, 6th August (JCR).

333. **Reed Warbler**. Only two observers noted this species, first seen at Corsham Lake, 26th April (JCR); Coate Water, 30th April (GLW). Approximately 30 pairs bred at Coate and 12 at Corsham. Last record: 1 at Coate, 21st September.

337. **Sedge Warbler**. First seen: Longford, 8th April (RW); Coate Water, 15th April (GLW); Upavon, 20th April (SPMK). Last seen at Coate Water, 21st September (GLW).

343. **Blackcap**. One recorded at Pewsham, 12th March; this probably an over-wintering bird (JLAT). Seen at Naish Hill, 16th April (TA); Corsham Lake 18th April (JCR).

346. **Garden Warbler**. Few records this year: Bowden Hill, 19th April (TA); Cole Park, 5th May (EJMB). Last seen Christian Malford, 28th August (JCR).

347. **Whitethroat**. In song Cole Park, 16th April (EJMB); Durnford, 22nd April (DEF, AJH). Nine breeding records received. Last seen: Christian Malford, 28th August (JCR); several at Swindon S.F., 10th September (GLW).

348. **Lesser Whitethroat**. One at Cole Park, 16th April (EJMB); Shalbourne, 6th May (HEE). Only 1 breeding record. Last seen: Coate Water, 10th September (JAH).

354. **Willow Warbler**. First heard: Pewsham, 1st April (JLAT); Coate Water and Shalbourne, 7th April (GLW, HEE); Long Dean, 9th April (TA).

356. **Chiffchaff**. First noted: Chippenham, 7th March (CR); Lacock, 12th March (JCR); Shalbourne, 14th March (HEE) and Pewsham (JLAT). Last seen: Marlborough, 16th September (DWF); Swindon, 1st October (GLW); Amesbury, 7th October (DW).

357. **Wood Warbler**. A pair feeding young in the Semley area early in June; this is the first definite breeding record there (JEM). Also noted at Gutch Common (JEM); Grovely Wood (DC); Savernake (MCNHS); Longleat (VEB) and Fonthill (BMS).

364. **Goldcrest**. More records than in recent years and pairs seen in several suitable breeding localities. Nests found at Semley and Fonthill Bishop (JEM).

366. **Spotted Flycatcher**. First noted: Pewsham, 5th May (JLAT); Salisbury (RW). A male at Longford Castle appeared to be mated with 2 females, Both the females

built nests and laid eggs but only 1 brood was reared (IR). A nest found at Haxton Down with bird sitting, 6th August (DJC, MAW). Last record: 1 at Roundway, 9th September (BG).

368. **Pied Flycatcher**. A male at edge of wood, Roundway Park, 23rd April (BG); another male on the same date at Salisbury (DMW). A female at Roundway Park, 9th September (BG).

379. **Water Pipit**. A solitary pipit by flood water in a meadow at Bincknoll, 19th March (GLW). Points noted: grey upperparts, grey cheeks and bright light eye stripe, buffish pink underparts with some faint streaking towards the axillaries.

380. **Pied Wagtail**. *c.* 200 roosting in reeds at Christian Malford during the early autumn (JCR).

381. **Grey Wagtail**. A pair reared 2 broods in the same nest at Cole Park; another pair seen feeding newly fledged young at Malmesbury (EJMB). Numerous sight records during autumn and winter months.

382. **Yellow Wagtail**. First seen: Porton, 5th April (GHF); Chitterne, 6th April (SPMK). Breeding records from Coate Water, Swindon S.F., Shotford and Lacock (GLW, DEF and JCR). *c.* 100 roosting in a reed bed on the River Avon near Chippenham (TA). Last seen: Swindon S.F. (GLW); Marlborough, 14th November (MCNHS).

384. **Great Grey Shrike**. One reported near Wilton Water on 15th January (JGC, MCNHS). One at Barton Gallops, 4th March, was probably the same bird as at Fyfield Down, 16th–27th March (MCNHS, GLW and IWY). On 4th February, 1 at Great Yews (GHF).

388. **Red-backed Shrike**. Only 1 breeding record this year and a solitary male near Larkhill 2nd July (RCF, JCR).

389. **Starling**. Quite a large roost in a wood near Beanacre, 25th August (JCR).

391. **Hawfinch**. Seen at Fonthill, 2nd January; Berwick St. Leonards, 4th January (LFS). One found shot at Corsham, 30th March (CR); 1 seen at Downton, 1st November (OK).

394. **Siskin**. A party of 3 feeding in alders at Fonthill Lake, 29th January (GLB). From the middle of November 1966 until 18th January. *c.* 12 in alders at Fonthill Bishop (LFS).

397. **Redpoll**. Three were seen near Castle Combe, 1st January (JGC); 5 at Swindon S.F., 13th August (GLW); 3 at Naish Hill, 14th November (RGB). Also recorded at Park Copse, East Knoyle, 6th February; 30th October and 17th November (BMS).

404. **Crossbill**. A fledgling caught by a cat near Winterslow, 13th July (DEF, AJH).

408. **Brambling**. Numerous records received covering most of the county. Maximum numbers: *c.* 100, Oxenwood, 5th March (EARE); *c.* 100, Lockeridge, 1st January (GLB). Last seen in spring: Old Eagle, 20th February (MCNHS); Warminster, 6th April (SS). Early autumn records: Roundway, 5th November (BG); Savernake, 18th November (MCNHS). *c.* 150 seen at Wilton Water, 16th December (DEF, AJH).

409. **Yellow Hammer**. Quite a large flock of *c.* 100 near Trowbridge, 2nd January (SS).

415. **Cirl Bunting**. Only 1 report of breeding and that for the extreme south of the county (RW). Two sight records both of singing males, at West Harnham in May and at Porton in June (DC, GHF).

421. **Reed Bunting**. Recorded breeding at Semley for the first time (JEM).

424. **House Sparrow**. A bird seen at Seagry of a uniform sand colour without any markings. The bill was of a pinkish hue, this bird possibly a leucistic mutant (RGB).

425. **Tree Sparrow**. No large winter flocks reported, maximum numbers: *c.* 20 at Enford, 5th March (DC); *c.* 40 at Lacock G.P., 12th March (JCR).

The following species were also recorded during the year, either by single records or in general terms: Wood Pigeon, Stock Dove, Skylark, Rook, Jay, Great Tit, Coal Tit, Marsh Tit, Nuthatch, Tree Creeper, Dunnock, Meadow Pipit, Tree Pipit, Greenfinch, Goldfinch, Linnet, Bullfinch, Chaffinch and Corn Bunting. None of the records indicated any change in status.

WILTSHIRE PLANT NOTES (28)

compiled by DONALD GROSE

Records are for 1967 unless otherwise stated.

Equisetum fluviatile L. Water Horsetail. 2. Railway bank near Holt, *Admiral Sir John Coote.*
Athyrium filix-femina (L.) Roth. Lady Fern. 2. Hazeland. Roundway Park.
Polypodium interjectum Shivas. 2. Colerne, *Miss D. M. Frowde* (G).
Ranunculus lingua L. Great Spearwort. 2. Pond, Corsham, *Mrs. J. Swanborough.*
(*Adonis annua* L. Pheasant's Eye. 10. Reappeared in quantity at Odstock, *Lady Radnor.*)
Papaver dubium L. Smooth Long-headed Poppy. 9. Dinton, *R. Bennett.*
P. somniferum L. Opium Poppy. 9. Dinton, *R. Bennett.*
Meconopsis cambrica (L.) Vig. Welsh Poppy. 9. Garden escape, Chilmark, *R. Bennett.*
Lepidium sativum L. Garden Cress. 7. Pewsey, 1966, *R. A. H. Hillman.*
Coronopus didymus (L.) Sm. Wart Cress. 2. Waste ground near Holt Station, *Mrs. B. Sheppard.* 5. Newton Tony, *Miss D. O. Cole* (261).
Iberis amara L. Candytuft. 7. Pewsey, 1966, *R. A. H. Hillman.*
(*Turritis glabra* L. Tower Mustard. 2. Refound at the old locality in Chittoe, *Col. C. Floyd.*)
Hesperis matronalis L. Dame's Violet. 2. Rowde Mill, *Mrs. B. Sheppard.* 4. Frequent.
Cheiranthus cheiri L. Wallflower. 5. Naturalized on railway bank, Newton Tony, *G. H. Forster* (261).
Viola odorata L. Sweet Violet. 8. Coulston Hill, *Mrs. I. M. Grose.* 9. Dinton, *R. Bennett.*
V. tricolor L. Wild Pansy. 1. Bratton, *Miss H. M. Hughes.*
Silene anglica L. English Catchfly. 7. Casual, The Close, Salisbury, *Mrs. B. Smethurst.*
Vaccaria pyramidata Medic. Cow Basil. 9. Bird-seed alien, East Knoyle, *B. M. Stratton.*
Saponaria officinalis L. Soapwort. 5. Allington, *Miss D. O. Cole* (261).
Sagina apetala Ard. Annual Pearlwort. 2. Seend Station, *Mrs. B. Sheppard.*
S. ciliata Fries. Fringed Pearlwort. 2. Seend Station, *Mrs. B. Sheppard.*
Spergula arvensis L. Corn Spurrey. Var. *saiiva* (Boenn.) Mert. & Koch. 1. Waste ground, Marston. 8. Waste ground, Cheverell Down, *Miss H. M. Hughes.*

Claytonia perfoliata Willd. 4. Savernake Nursery, probably introduced with beech seedlings, *N. E. King.*
Chenopodium bonus-henricus L. Good King Henry. 9. East Knoyle, *B. M. Stratton.*
C. polyspermum L. All-seed Goosefoot. 2. Railway track, Hazeland.
Atriplex hastata L. Orache. Var. *deltoidea* (Bab.) Moq. 1. Marston.
Erodium cicutarium (L.) L'Hérit. Stork's-bill. 9. Dinton, *R. Bennett.*
Impatiens parviflora DC. Small-flowered Balsam. 2. Woodland adjoining Dyehouse Lane, Devizes, *A. S. Cleverly.*
I. glandulifera Royle. Himalayan Balsam. 2. Corsham, *Mrs. J. Swanborough.* Roadside near Bromham, *Admiral Sir John Coote.*
Ononis repens L. Rest Harrow. 9. Teffont Down, *B. M. Stratton.*
O. salzmanniana Bouss. & Reut. 1. Bird-seed alien, Westbury, *Mrs. E. Curtis.* Trowbridge, *N. E. King* (G).
Medicago denticulata Willd. Toothed Medick. 1. Garden casual, Bratton, *Miss H. M. Hughes.*
Melilotus alba Desr. White Melilot. Westbury Road, Warminster, *R. Bennett.*
Trifolium arvense L. Hare's-foot Trefoil. 9. Dinton, *R. Bennett.*
T. micranthum Vig. Least Yellow Trefoil. 2. Shaw, Melksham, *Mrs. B. Sheppard* (G).
Coronilla varia L. Crown Vetch. 9. Near Donhead St. Mary Church, *Mrs. F. D. Richards* (261).
Vicia tetrasperma (L.) Schreb. Smooth Tare. 9. Dinton, *R. Bennett.*
Lathyrus nissolia L. Grass Vetchling. 8. Coulston Down, *Miss H. M. Hughes.* Near Butler's Cross, *Col. C. Cowan.*
Geum rivale L. Water Avens. Proliferous form. 8. Longleat, *Miss M. Johnson.*
Sanguisorba officinalis L. Great Burnet. 2. Railway bank, Kellaways, *Mrs. J. Swanborough.* 5. Near Winterslow, *Mrs. F. D. Richards* (261).
Prunus x *fruticans* Weihe. 9. Semley, *B. M. Stratton* (G).
Sorbus torminalis (L.) Crantz. Wild Service-tree. 7. Hedge between Wilsford and Beechingstoke, *Miss C. Moore.*
Malus sylvestris (L.) Mill. Crab Apple. An early record is: *1552.* '. . . a bough of a crab tree . . .' The bough was overhanging the river near Trowbridge (113, 1967, 109).
Sedum album L. White Stonecrop. 9. Churchyard wall, East Knoyle, *B. M. Stratton.*
Saxifraga umbrosa L. London Pride. 1. Pear Tree Hill, Cheverell, *F. Mead.*
Lythrum graefferi Ten. (*L. junceum* Buch). 2. Casual, Langley Burrell, *Mrs. J. Swanborough.*
Epilobium obscurum Schreb. 2. Hazeland. Roundway Park.
(*Viscum album* L. Mistletoe. 5. Pepperbox Hill, on whitebeam, *Miss D. M. Wear* (261). Mistletoe is frequent in District 5 but it has not been recorded previously on whitebeam in Wiltshire.)
Hydrocotyle vulgaris L. Marsh Pennywort. 1. Clyffe Hall, 1966, *R. A. H. Hillman.*
Coriandrum sativum L. Coriander. 1. Garden casual, Bratton, *Miss H. M. Hughes.*
Bupleurum lancifolium Hornem. 2. Casual, Broadmead, Chippenham, *H. J. Hunt* (G).
Ammi majus L. 1. Bird-seed alien, Bratton, *Miss H. M. Hughes.*
Carum carvi L. Caraway. 4. Field verge, Avebury Down, *Col. C. Floyd.*
Heracleum sphondylium L. Hogweed. Var. *angustifolium* Huds. 9. Dinton, *R. Bennett.*
Euphorbia dulcis L. Slender Spurge. 2. Corsham Park, probably introduced, *Mrs. J. Swanborough.*
Polygonum bistorta L. Bistort. 2. Dyehouse Lane, Devizes, *E. V. Cleverly.*
Salix aurita L. Round-eared Sallow. 4. Grand Avenue, Savernake Forest.
Primula veris x *vulgaris*. False Oxlip. 1. Railway bank, Lydeway, 1965, *F. Mead.*
Lysimachia vulgaris L. Common Loosestrife. 9. Frequent.
Trachystemon orientalis (L.) G. Don. 9. Quarry Wood, Fonthill, *L. F. Stearn* (261).
Cuscuta epithymum L. Lesser Dodder. 1. Great Cheverell Hill, *F. Mead.*

Atropa belladonna L. Deadly Nightshade. 2. Roadside near Conkwell Grange, *Mrs. E. Curtis.*

Hyoscyamus niger L. Henbane. 5. Gomeldon, *C. M. R. Pitman* (261).

Lycopersicon esculentum Mill. Tomato. 2. Railway track, Hazeland, *Misses B. Gillam* and *W. Stevenson!*

(*Verbascum nigrum* L. Black Mullein. 1. The record for Westbury (266) was an error.)

Kickxia spuria (L.) Dum. Round-leaved Fluellen. 1. Westbury, *Mrs. E. Curtis.*

K. elatine (L.) Dum. Fluellen. 7. Etchilhampton Hill, *F. Mead.*

Mimulus guttatus DC. Monkey-flower. 8. River Wylye near Great Wishford, *Admiral Sir John Coote.*

Euphrasia nemorosa (Pers.) Wallr. Common Eyebright. 6. Frequent. 9. Dinton, *R. Bennett.*

Odontites verna (Bell.) Dum. Red Bartsia. Subsp. *serotina* (Wettst.) E. F. Warb. 2. Broughton Gifford, *Admiral Sir John Coote.*

Orobanche minor Sm. Lesser Broomrape. 9. Dinton, *R. Bennett.*

Thymus drucei Ronn. Wild Thyme. 2. Hazelbury, *Mrs. B. Sheppard.* 6. Fosbury Camp and Silver Down, *N. E. King.*

Nepeta cataria L. Catmint. 2. Hedge near Chalfield Manor, *Col. C. Floyd.*

Scutellaria galericulata L. Greater Skull-cap. 9. Frequent.

Campanula rapunculoides L. Creeping Bellflower. 5. Porton, *Miss D. O. Cole* (261).

C. poscharskyana Degen. Trailing Bellflower. 5. Naturalized, Whiteparish Common, *C. M. R. Pitman* (261; G). Mr. Pitman has known the plant there for about 30 years.

Asperula arvensis L. 1. Garden casual, Bratton, *Miss H. M. Hughes.*

Sambucus ebulus L. Danewort. 4. Field north-east of Little Bedwyn Church, 1966, *R. A. H. Hillman.*

Dipsacus pilosus L. Small Teasel. 9. Dinton, *R. Bennett.*

Senecio squalidus L. Oxford Ragwort. 9. Dinton, *R. Bennett.*

S. viscosus L. Stinking Groundsel. 7. Railway Station, Pewsey, 1966, *R. A. H. Hillman.* 9. Dinton, *R. Bennett.*

Petasites fragrans (Vill.) C. Presl. Winter Heliotrope. 7. Near Manningford Bruce Church, 1966, *R. A. H. Hillman.*

(*Pulicaria vulgaris* Gaertn. Small Fleabane. 1. One plant in a new locality at Poulshot, *Mrs. N. Hooke.*)

Filago germanica L. Cudweed. 9. Dinton, *R. Bennett.*

Erigeron canadensis L. Canadian Fleabane. 10. Chalk-pit, Tidpit (Hants).

Centaurea nigra L. Black Knapweed. 2. Hazeland. 9. Gutch Common, *B. M. Stratton!*

C. nemoralis Jord. Lesser Knapweed. 9. Dinton, *R. Bennett.* 10. Frequent.

C. solstitialis L. St. Barnaby's Thistle. 1. Casual, Bratton, *Miss H. M. Hughes* (G).

Scolymus hispanicus L. Golden Thistle. 9. Casual, Hindon, *L. F. Stearn* (261).

Cicerbita macrophylla (Willd.) Wallr. Blue Sowthistle. 9. East Knoyle, *R. S. Beynon.*

Hieracium brunneocroceum Pugsl. Orange Hawkweed. 9. Dinton, *R. Bennett.*

(*Taraxacum officinale* Weber. Dandelion. It is now thought that weather conditions may have caused the abnormalities recorded (267) for the Dilton area in 1966. Mr. Bennett subsequently discovered plants bearing cauline leaves in places which had not been sprayed.)

(*Butomus umbellatus* L. Flowering Rush. 9. Refound at Quidhampton, *K. Grinstead.*)

Lagarosiphon major (Ridl.) Moss. Curly Water-thyme. 3. Gravel-pit at Poole Keynes (Glos.), *Mrs. S. C. Holland* (268).

Ornithogalum umbellatum L. Star of Bethlehem. 2. Monkton Park, *A. Whiting.*

O. pyrenaicum L. Spiked Star of Bethlehem. 1. Near Etchilhampton Hill, *F. Mead.* 8. Coulston Down, *Mrs. D. C. Wheatley.*

Crocus purpureum Weston. Crocus. 7. Pewsey, 1966, but since destroyed, *R. A. H. Hillman.*

Epipactis phyllanthes G. E. Smith. Drooping Helleborine. 4. A second locality near the Grand Avenue, Savernake Forest, *Mrs. A. Sheppard.*

Spiranthes spiralis (L.) Chevall. Lady's Tresses. 1. Valley north of Littleton Down and Hillier's Hole, *F. Mead.*
Neottia nidus-avis (L.) Rich. Bird's-nest Orchid. 4. Lovers' Walk, Savernake Forest, *J. H. Halliday.*
Gymnadenia conopsea (L.) R. Br. Fragrant Orchid. 5. Frequent.
(*G. conopsea* x *Orchis fuchsii* 2. Refound at Morgan's Hill, 1966, *R. A. H. Hillman.*)
Platanthera bifolia (L.) Rich. Lesser Butterfly Orchid. 1. Frequent.
Ophrys insectifera L. Fly Orchid. 1. Pear Tree Hill, Cheverell, *F. Mead.*
Orchis ustulata L. Burnt Orchis. 5. Frequent.
O. morio L. Green-winged Orchis. 9. Salisbury Race-plain, 1965, *F. Mead.*
O. mascula L. Early Purple Orchis. 1. Frequent.
O. ericetorum E. F. Linton. Heath Spotted Orchis. 1. Greenlands Wood, *F. Mead.* 2. Shaw, Melksham, *Mrs. B. Sheppard* (G).
Typha latifolia L. Great Reed-mace. 8. Pool near Imber, *Miss H. M. Hughes.*
Vulpia bromoides (L.) Gray. Squirrel-tail Fescue. 2. Seend Station, *Mrs. B. Sheppard.*
V. myuros (L.) C. C. Gmel. Mouse-tail Fescue. 2. Seend Station, *Mrs. B. Sheppard.*
Brachypodium pinnatum (L.) Beauv. Tor Grass. 6. Frequent.
Holcus mollis L. Creeping Soft Grass. 2. Hazeland, *Misses B. Gillam* and *W. Stevenson!*
Phalaris arundinacea L. Var. *picta* L. Ribbon Grass. 7. Waste ground, Winchester Street, Salisbury, *K. Grinstead* (261; G).
P. canariensis L. Canary Grass. 1. Rubbish tip, Penleigh, *Mrs. E. Curtis.*
Digitaria sanguinalis (L.) Scop. Hairy Finger-grass. 1. Casual, Bratton, *F. G. Parker* (G).

113 *W.A.M.*
261 *Salisbury and District N.H.S. Bulletins.*
266 Wiltshire Plant Notes (26).
267 Wiltshire Plant Notes (27).
268 *North Glos. Naturalists' Soc. Journal.*
G The writer's herbarium.
! Seen by the writer in the locality named.

COLOUR VARIATION IN WILTSHIRE FLOWERS

by DONALD GROSE

Colour forms of flowers recorded since the publication of the *Flora of Wiltshire* in 1957 have been excluded from the annual *Plant Notes*. The object has been to present this comprehensive list in readily available form. In it the information from the *Flora of Wiltshire* is summarized while details are given of all subsequent records to 1967. There is, perhaps, small scientific value in the enumeration of these records since abnormal coloration may arise from different causes. It usually has a genetic basis but sometimes may be due to environmental conditions or to a combination of these factors; elucidation depends on experimental work. However, there is much interest taken generally in colour variation by field botanists and the comparison of its frequency between species may be of some worth.

Very many red, blue and purple flowers have white forms. The condition is sometimes associated with a different shade of green in foliage and stem. Thus, white-flowered *Geranium robertianum* (Herb Robert) may become a bright vivid green while *Gentianella amarella* (Felwort) may be modified to a pale yellowish-green. In *Orchis mascula* (Early Purple Orchid) white-flowered forms are usually devoid of spots on the leaves and the deeper colours of purple may have stronger leaf-spotting. Yellow coloration appears to have more permanency and while pale yellow or cream forms are occasional, the pure white form of a yellow-flowered species is rare.

In the list the total of already published records is given, e.g. Fl. 10 indicates that

there are 10 notices for the particular colour variation in the *Flora of Wiltshire*. Numerals before localities designate the botanical districts into which the county is divided.

Anemone nemorosa L. Wood Anemone. Red-purple (var. **purpurea**), Fl. 10
4. West Woods, *Mrs. I. M. Grose.*
Red-tinged flowers are frequent.
Ranunculus acris L. Common Buttercup. Cream.
2. Cherhill Down, *A. H. Ridout.*
Ranunculus bulbosus L. Bulbous Buttercup. Cream, Fl. 5
Ranunculus ficaria L. Lesser Celandine. Cream, Fl. 3
Aquilegia vulgaris L. Columbine. Pale blue, Fl. 1. Red, Fl. 3. White, Fl. 2
Papaver rhoeas L. Common Poppy. White, Fl. 3
1. Edington, *Miss H. M. Hughes.*
Pale maroon, Fl. 1
Papaver dubium L. Smooth Long-headed Poppy. White, Fl. 1
Raphanus raphanistrum L. Wild Radish.
White-flowered plants are more common than yellow-flowered ones.
Viola odorata L. Sweet Violet. Pink (var. **subcarnea**), Fl. 30
8. Corton, *Mrs. M. E. Cary.*
White (var. **dumetorum**), Fl. 7
White (var. **imberbis**), Fl. 43
2. Monkton Park. **4.** Draycot Foliat, *Mrs. I. M. Grose.* **6.** Near Ludgershall Castle, *Mrs. I. M. Grose.* Marten. **7.** Wilcot. **8.** Corton, *Mrs. M. E. Carey.*
White with lilac (var. **variegata**), Fl. 8
8. Corton, *Mrs. M. E. Carey.*
Viola hirta L. Hairy Violet. White, Fl. 1
Viola reichenbachiana Jord. Wood Violet. White, Fl. 1
Viola riviniana Reichb. Dark Wood Violet. White, Fl. 2
Viola canina L. Dog Violet. White, Fl. 4
Polygala spp. Milkwort.
Details of colour-forms are given in *Fl. Wilts.*
Hypericum pulchrum L. Upright St. John's Wort. Cream, Fl. 1
Helianthemum chamaecistus Mill. Rock-rose. Cream, Fl. 11
2. King's Play Down, *Miss B. Gillam.* **6.** Border of Collingbourne Wood. **10.** Near Manwood Copse.
White, Fl. 1
Chenopodium rubrum L. Red Goosefoot. Green, Fl. 3
Silene anglica L. English Catchfly. Red, Fl. 1
Melandrium noctiflorum (L.) Fries. Night-flowering Catchfly. Red, Fl. 1
Melandrium album (Mill.) Garcke. White Campion. Pink, Fl. 7
1. Seend, *Miss B. Cowley.*
It is probable that all these were hybrids with *M. rubrum.*
Melandrium rubrum (Weig.) Garcke. Red Campion. Pink, Fl. 5
8. Corton and Southleigh Wood, *Mrs. M. E. Carey.*
White, Fl. 26
4. Tawsmead Copse. **7.** Redhorn Hill. **8.** Southleigh Wood, *Mrs. M. E. Carey.* Most of these were male.
Lychnis flos-cuculi L. Ragged Robin. White, Fl. 9
2. Braydon Pond, *Col. C. Cowan.* **5.** Porton, *Miss A. Hutchison.* Gomeldon, *K. Grinstead.* **9.** Semley, *Col. C. Cowan.*
Malva moschata L. Musk Mallow. White, Fl. 12
1. St. Joan à Gore Cross, *Col. C. Cowan.* **4.** Avebury, *Miss E. Dampier-Child.* West Woods, *N. E. King.* **7.** Stonehenge, *N. U. Grudgings.* Charlton Down. **8.** Stockton Down, *Mrs. M. B. Yeatman-Biggs.* Imber.

Malva sylvestris L. Common Mallow. White, Fl. 1
Linum usitatissimum L. Common Flax. White, Fl. 1
Geranium pratense L. Meadow Crane's-bill. White, Fl. 8
2. Lyneham, *Miss B. Gillam.* 4. Granham Hill, *D. C. C. Hughes.*
Lilac, Fl. 13
Geranium pyrenaicum Burm. f. Mountain Crane's-bill White, Fl. 1
2. Bromham, *N. U. Grudgings.*
Geranium molle L. Dove's-foot Crane's-bill.
Pink and white forms are very frequent.
Geranium dissectum L. Cut-leaved Crane's-bill. Pink, Fl. 1. White, Fl. 2
Geranium robertianum L. Herb Robert. White, Fl. 12
2. Rowde, *P. Cleverly.*
This is known to come true from seed and has persisted in some of its localities for many years.
Ononis repens L. Rest Harrow. White, Fl. 1
Ononis spinosa L. Spinous Rest Harrow. White, Fl. 4
8. Down near Wadman's Coppice.
Trifolium pratense L. Red Clover. White, Fl. 5
Anthyllis vulneraria L. Kidney Vetch. Cream, Fl. 1
2. Calstone Down, *Col. C. Cowan.*
Red, Fl. 2
7. Milston Down.
Hippocrepis comosa L. Horse-shoe Vetch. Cream, Fl. 2
Vicia cracca L. Tufted Vetch. Reddish, Fl. 1. Pale blue, Fl. 1.
White, Fl. 1.
2. Charlcutt, *H. Kay.*
Vicia sepium L. Bush Vetch. White to cream (var. **ochroleuca**), Fl. 8
2. Railway near Holt, *Admiral Sir John Coote.* 4. Near Pain's Bridge, *Miss B. Gillam.*
Vicia angustifolia L. Narrow-leaved Vetch. White.
7. Near All Cannings Cross Farm, *Mrs. E. Timperley.*
Geum rivale L. Water Avens. Deep crimson, Fl. 1. White, Fl. 1
Epilobium hirsutum L. Great Willow-herb. White, Fl. 4
1. Westbury, *R. Bennett.* 2. Near Clyffe Pypard Wood, *Miss B. Cowley.* Avon near Monkton House, *Admiral Sir John Coote.* Near Lacock Halt, *Mrs. J. G. Cobbold.* Brinkworth, *Col. C. Cowan.* 3. Marston Meysey, *Col. C. Cowan.*
Epilobium parviflorum Schreb. Small-flowered Willow-herb. White, Fl. 3
Red and white on same plant.
2. Monkton Park.
Epilobium montanum L. Broad-leaved Willow-herb. White, Fl. 19
Red and white on same plant, Fl. 1
Epilobium roseum Schreb. Pale Willow-herb. White, Fl. 3
Epilobium obscurum Schreb. White, Fl. 1
Pimpinella saxifraga L. Burnet Saxifrage. Pink.
8. Corton Downs, *Mrs. M. E. Carey.*
Silaum silaus (L.) Schinz & Thell. Sulphurwort. Bright yellow, Fl. 1
Heracleum sphondylium L. Hogweed. Bright red, Fl. 2
Daucus carota L. Wild Carrot. Bright yellow.
1. Coulston Hill, *Mrs. I. M. Grose.*
Polygonum persicaria L. Common Persicaria. White, Fl. 3
Polygonum lapathifolium L. Pale Persicaria. White, Fl. 1
Polygonum nodosum Pers. Spotted Persicaria. White, Fl. 1
Calluna vulgaris (L.) Hull. Heather. White, Fl. 3
8. Great Ridge Wood, *Mrs. I. M. Grose.*
Erica tetralix L. Cross-leaved Heath. White, Fl. 3

Erica cinerea L. Fine-leaved Heath. White, Fl. 1
Primula vulgaris Huds. Primrose. Reddish, Fl. 8. White, Fl. 3
Primula veris L. Cowslip. Red.
2. Near Smallgrain Plantation, *Mrs. E. Peacock* and *G. W. Collett.*
Anagallis arvensis L. Scarlet Pimpernel. Purplish (var. **vinacea**), Fl. 1
Pink (var. **pallida**), Fl. 3. Flesh (var. **carnea**), Fl. 5.
Blue (var. **caerulea**), Fl. 4
1. Dilton Vale, *R. Bennett.* This blue form should not be confused with the true Blue Pimpernel, subsp. *foemina*, which is more frequent.
Ligustrum vulgare L. Privet. Yellow (var. **auriflorum**), Fl. 1
Vinca minor L. Lesser Periwinkle. White.
9. East Knoyle, *B. M. Stratton.*
Centaurium minus Moench. Centaury. White, Fl. 19
2. Near Braydon Pond, *Miss E. Gliddon.* 5. Blackmoor Copse, *K. Grinstead.* 7. Chirton Down. 8. Tilshead Lodge, *Col. C. Cowan.* Horse Down. 9. Dinton, *R. Bennett.*
Gentianella campestris (L.) Börner. Field Gentian. White, Fl. 1
Gentianella amarella (L.) Börner. Felwort. White, Fl. 24
8. White Sheet Hill.
Gentianella anglica (Pugsl.) E. F. Warb. Early Gentian. White, Fl. 1
Polemonium caeruleum L. Jacob's Ladder. White, Fl. 6
Symphytum officinale auct. Comfrey. Pink, Fl. 2. Scarlet, Fl. 11
The purple-flowered form is frequent throughout the county.
Probably all colour-forms are due to hybridization.
Lycopsis arvensis L. Bugloss. Pink, Fl. 1
3. Okus.
Myosotis scorpioides L. Forget-me-not. Variegated, Fl. 2. White, Fl. 2
Myosotis sylvatica (Ehrh.) Hoffm. Wood Forget-me-not. White, Fl. 4
Echium vulgare L. Viper's Bugloss. White, Fl. 2
Calystegia sepium agg. Great Bindweed. Pink and pink-veined, Fl. 5
1. Stert, *B. M. Stratton.* 2. Ditteridge, *Miss D. M. Frowde.* Somerford Common. 3. Little Hinton, *Mrs. I. M. Grose.* Wanborough Plain. Highworth, *Cmdr. J. O. A. Arkell.* 8. Shrewton and Stockton Park, *B. M. Stratton.* 9. Tisbury, East Knoyle, Mere and Semley Hill, *B. M. Stratton.*
Most of these records probably come under *C. pulchra* Brummitt & Heywood.
Datura stramonium L. Thorn-apple. Purple (var. **tatula**).
1. Little Cheverell, *Mrs. M. E. Nurse.* 2. Upper Seagry and Great Somerford, *Mrs. R. Barnes.* Rowde, *E. V. Cleverly.* 4. Lottage.
Verbascum thapsus L. Great Mullein. White, Fl. 2
Cymbalaria muralis Baumg. Ivy-leaved Toadflax. White, Fl. 3
9. Fonthill House, *Mrs. E. Timperley.* Upper Chicksgrove, *K. Grinstead.*
Digitalis purpurea L. Foxglove. White, Fl. 8
Veronica hederifolia L. Ivy-leaved Speedwell. White, Fl. 2
8. Corton Down, *Mrs. M. E. Carey.*
White and blue on same plant.
8. Corton Down, *Mrs. M. E. Carey.*
Veronica polita Fries. Grey Field Speedwell. White, Fl. 1
Veronica agrestis L. Green Field Speedwell. White, Fl. 4
2. Shaw, *Mrs. B. Sheppard.*
Pink.
2. Shaw Hill, *Mrs. B. Sheppard.*
Blue.
7. Lower Woodford, *R. S. Newall.*
Veronica persica Poir. Buxbaum's Speedwell. White, Fl. 4

2. Shaw, *Mrs. B. Sheppard.* **8.** Corton, *Mrs. M. E. Carey.*
Pink, Fl. 1

Veronica arvensis L. Wall Speedwell. Pink, Fl. 1

Veronica serpyllifolia L. Thyme-leaved Speedwell.
Whitish flowers are frequent.

Veronica officinalis L. Common Speedwell. Pink, Fl. 3. White, Fl. 1

Veronica chamaedrys L. Germander Speedwell. White, Fl. 2
4. Kitchen Barrow Hill, *Miss B. Gillam.*
Milky-blue, Fl. 1
4. Knap Hill, *Mrs. I. M. Grose.* Pink, Fl. 1

Pedicularis sylvatica L. Heath Lousewort. White, Fl. 4

Melampyrum arvense L. Purple Cow-wheat. White, Fl. 1

Odontites verna (Bell.) Dum. Red Bartsia. White, Fl. 11
6. North Tidworth, *Miss B. Gillam.* **7.** Figheldean Down, *G. W. Collett.* **8.** Wylye Down, *B. M. Stratton.*

Orobanche elatior Sutton. Tall Broomrape. Clear yellow (f. **citrina**), Fl. 3
4. Stanton St. Bernard, *Col. C. Cowan.*

Orobanche minor Sm. Lesser Broomrape. Pale yellow Fl. 2

Origanum vulgare L. Marjoram. White, Fl. 7
1. Upton Cow Down. **2.** Conkwell, *W. G. Collins*

Thymus pulegioides L. Large Wild Thyme. White, Fl. 1

Thymus drucei Ronn. Wild Thyme. White, Fl. 3

Acinos arvensis (Lam.) Dandy. Basil Thyme. White, Fl. 5
5. Porton Ranges, *Dr. A. E. Williams.*

Clinopodium vulgare L. Wild Basil. White, Fl. 3
8. Great Ridge Wood, *Mrs. E. Timperley.*

Melittis melissophyllum L. Bastard Balm. White, Fl. 1

Prunella vulgaris L. Self-heal. White, Fl. 30
2. Silk Wood, *D. Rice.* **6.** Collingbourne Wood, *Col. C. Cowan.* Sunton Heath.
Pink, Fl. 18
4. Huish Hill, *Col. C. Cowan.* **6.** Collingbourne Wood. **8.** Stapleford Down (1876), *Rev. W. M. Rogers.*
White and Purple on same plant, Fl. 1

Stachys officinalis (L.) Trev. Betony. White, Fl. 5
8. Wylye Down.

Stachys sylvatica L. Hedge Woundwort. Green, Fl. 2

Ballota nigra L. Black Horehound. White, Fl. 2

Lamium purpureum L. Red Dead-nettle. White, Fl. 6

Lamium album L. White Dead-nettle. Pink, Fl. 2

Galeopsis angustifolia Ehrh. Red Hemp-nettle. White, Fl. 1

Galeopsis tetrahit L. Hemp-nettle. White, Fl. 18
9. Haddon Hill, *B. M. Stratton.*

Glechoma hederacea L. Ground Ivy. White.
2. Spye Park, *G. W. Collett.*
Pink, Fl. 2

Ajuga reptans L. Bugle. White, Fl. 13
1. Flinty Knapp, *E. V. Cleverly.* **2.** Somerford Common, *L. F. Mead.* **5.** Blackmoor Copse, *K. Grinstead.* **8.** Great Ridge Wood, *Mrs. M. E. Carey.*
Pink to red, Fl. 10
5. Blackmoor Copse, *K. Grinstead.*

Campanula glomerata L. Clustered Bellflower. Pale blue, Fl. 1
2. Cloud Quarry, *Mrs. B. Sheppard.* **4.** Near Milk Hill, *Miss B. Gillam.*
White, Fl. 3

4. Knap Hill, *Misses A. Hutchison* and *E. Occomore*. **8.** Wylye Down.

Campanula trachelium L. Nettle-leaved Bellflower. White, Fl. 5

1. Great Cheverell, *N. E. King*.

Campanula rotundifolia L. Harebell. White, Fl. 9

6. Sunton Heath. **7.** Chirton Down. **8.** Corton Down, *Mrs. M. E. Carey*. Great Ridge Wood, *H. W. Timperley*. Stockton Down, *Mrs. M. B. Yeatman-Biggs*. Stockton Earthworks, *B. M. Stratton*.

Campanula patula L. Spreading Bellflower. White, Fl. 1

Sherardia arvensis L. Field Madder. White, Fl. 2

Galium verum L. Lady's Bedstraw. Cream.

Most such plants are probably referable to *G. mollugo* x *verum*.

Knautia arvensis (L.) Coult. Field Scabious. White, Fl. 11

1. Coulston Hill. Hill Wood, *P. Cleverly*. **4.** Near Beckhampton, *Col. C. Cowan*. **8.** Near Wadman's Coppice, *Mrs. B. E. Pankhurst*.

Scabiosa columbaria L. Small Scabious. White, Fl. 1

4. Knap Hill, *R. A. H. Hillman*. Burderop Down.

Succisa pratensis Moench. Devil's-bit. Pink, Fl. 5

5. Hamptworth, *Col. C. Cowan*. **6.** Collingbourne Wood, *Col. C. Cowan*.

White, Fl. 9

Senecio jacobaea L. Ragwort. White ray-florets, Fl. 1

Senecio erucifolius L. Hoary Ragwort. White ray-florets.

1. Near Westbury Station, *Mrs. E. M. Curtis*.

Tussilago farfara L. Coltsfoot. Cream.

2. Blackland, *Col. C. Cowan*.

Eupatorium cannabinum L. Hemp Agrimony. White, Fl. 3

Achillea millefolium L. Yarrow.

Pink to red forms are frequent.

Carduus nutans L. Musk Thistle. Pink, Fl. 6. White, Fl. 6

Carduus crispus L. Welted Thistle. Pink, Fl. 1

3. Lower Wanborough.

White, Fl. 12

3. Ashton Keynes.

Carduus crispus x nutans White, Fl. 1

Cirsium vulgare (Savi) Ten. Spear Thistle. Pink, Fl. 16

4. Near Gopher Wood.

White, Fl. 9

4. Tan Hill, *Col. C. Cowan*. **7.** Wood Bridge. Chirton Down. **8.** Near Wadman's Coppice.

Cirsium palustre (L.) Scop. Marsh Thistle. Pink, Fl. 1. White, Fl. 107

Cirsium acaule (L.) Scop. Dwarf Thistle. White, Fl. 4

4. Near Gopher Wood.

Pink, Fl. 1

Cirsium arvense (L.) Scop. Creeping Thistle. White, Fl. 53

1. Coulston Hill. **2.** Somerford Common. **4.** Near Gopher Wood, *Col. C. Cowan*. **6.** Sunton Heath. **8.** Wylye Down. **9.** Semley Common and Ridge, *B. M. Stratton*.

Pink, Fl. 1

Centaurea nigra agg. Black Knapweed. White ray-florets, Fl. 3. White, Fl. 4

Centaurea scabiosa L. Great Knapweed. White, Fl. 28

1. Hill Wood, *P. Cleverly*. Near Bratton Castle, *R. Clarke*. **4.** Silbury Hill, *Miss W. Stevenson*. Near Gopher Wood, *Miss B. Gillam*. **7.** Milton Hill. **8.** Nea. Boyton, *B. M. Stratton*. Tilshead Lodge, *Col. C. Cowan*. Near Brouncker's Well. **9.** Fovant Down, *Mrs. M. White*. **10.** Broad Chalke, *J. B. Leach*.

White ray-florets, Fl. 4

Centaurea cyanus L. Cornflower. White, Fl. 1
Serratula tinctoria L. Saw-wort. White, Fl. 1
Cichorium intybus L. Chicory. White.
2. Sandridge, *Col. C. Cowan.*
Lapsana communis L. Nipplewort. Cream, Fl. 1
Under cultivation this came true from seed.
Fritillaria meleagris L. Fritillary. White, Fl. 4
Endymion non-scriptus (L.) Garcke. Bluebell. White, Fl. 46
1. Murhill, *D. Packer.* 5. Blackmoor Copse. 6. Jugg's Wood and Buttermere Wood, *Mrs. I. M. Grose.* 8. Great Ridge Wood, *Mrs. M. E. Carey.*
Pink, Fl. 5
1. Murhill, *D. Packer.*
Colchicum autumnale L. Meadow Saffron. White, Fl. 3
6. Everleigh Ashes, *R. A. H. Hillman.*
Epipactis helleborine (L.) Crantz. Broad-leaved Helleborine. Green, Fl. 2
9. Holloway, *M. Wallford.*
Gymnadenia conopsea (L.) R. Br. Fragrant Orchid. White, Fl. 12
5. Whiteparish Hill, *Miss D. P. E. Stevens.* 8. Corton Down, *Mrs. M. E. Carey.* Stockton Down, *B. M. Stratton.* 10. Down near East Combe Wood, *Mrs. B. Fergusson.* Ebbesbourne Down, *B. M. Stratton.*
Ophrys apifera Huds. Bee Orchid. White, Fl. 3
1. Erlestoke, *L. F. Mead.* 2. Beacon Hill, Heddington, *Miss B. Gillam.*
Orchis ustulata L. Burnt Orchid. White, Fl. 2
1. Fore Hill, *L. F. Mead.* 8. Corton Down, *Mrs. M. E. Carey.*
Orchis morio L. Green-winged Orchid. White, Fl. 6
9. Chicklade Bottom, *Miss Houghton Brown.*
Pink, Fl. 12
2. Hazelbury Common, *Mrs. B. Sheppard.* 9. Hawking Down, *L. F. Stearn.*
Orchis mascula L. Early Purple Orchid. Pink, Fl. 3
1. Cuckoo's Corner, *L. F. Mead.* 8. or 9. Pertwood, *Mrs. D. H. S. White.*
White, Fl. 5
9. Park Copse, East Knoyle, *B. M. Stratton.*
White-flowered plants are often with unspotted leaves.
Orchis fuchsii Druce. Spotted Orchid. White, Fl. 11
2. Beacon Hill, Heddington, *Miss B. Gillam.* 5. Whiteparish Hill, *Miss D. P. E. Stevens.* 8. Cow Down, Longbridge Deverill, *Mrs. M. White.* 9. Fovant Down, *Col. R. A. Bryden.*
Anacamptis pyramidalis (L.) L. C. Rich. Pyramidal Orchid. White, Fl. 1
1. Hillier's Hole, *L. F. Mead.* 5. Pepperbox Hill, *Miss A. Hutchison.* Porton Ranges, *G. H. Forster.* 8. Corton Down, *Mrs. M. E. Carey.*

BOTANICAL NOTE

Hudson's **Lichen siliquosus** from Wiltshire, *by* J. R. Laundon, *The Lichenologist*, **3**, 236–241

This short paper, dealing with the typification and ecology of the common maritime lichen now known as *Ramalina siliquosa* (Huds.) A.L.Sm. has a particular local interest. It is remarkable that the species should occur so far inland as in the Marlborough area, but still more surprising that it should have been originally described from specimens gathered there. Evidence is given to support the view that the type locality is the sarsen district of Overton Down, and that the typotype is represented by specimens in the Dillenian Herbarium at Oxford. The author has confirmed the existence of *R. siliquosa* at Avebury, at Overton Down and on the Devil's Den (where it is abundant) and has also discovered it at Stonehenge, a vice-county record.

ENTOMOLOGICAL REFORT FOR 1967

by B. W. WEDDELL

The past season seemed to be very slow in getting into its stride. There was a mild spell around the end of January, when one might see the odd wing in the beam of the headlights, but soon February produced high winds and heavy rain. Honey bees were seen working the sallows in March when there was a blink of sun. I notice that bumble bees are not so particular and can be seen working on dull days even in rain.

Another cold spell with snow hit us at the end of March, and several nights of frost in early May, after which a sultry spell really got things going at last.

Many of the butterflies seem to be slightly on the increase, excepting the migrant species which this year make a poor showing.

The lovely Adonis Blue is still giving cause for great anxiety. The Purple Emperor seems to be holding its own in its haunts in the south of the country. The Marsh Fritillary has turned up, in yet a new locality, but never so plentiful as it used to be.

It is difficult to generalize, but moths do appear to have considerably declined over the last 20 years. CMRP carried out a test in July and August under conditions as near as possible identical to one made in 1947. The comparison was devastating.

Last year I appealed for some attention to be given to some of the neglected orders of insects. So did CMRP in Salisbury and he had several reports on Ephemerata. These have been listed after the Lepidoptera and it is hoped that someone will undertake to write up these, and perhaps other orders next year.

Contributors

DB	Mr. David Brotheridge, Wroughton.
JR	Mr. John Roche, Great Somerford.
EJMB	Mr. E. J. M. Buxton, Malmesbury.
MC	Marlborough College, N.H.S.
JNK	Lt.-Col. J. N. Kirkaldy, West Lavington.
FM	Mr. Frank Mead, Devizes.
CF	Lt.-Col. Charles Floyd, O.B.E., Holt.
BW	Mr. B. W. Weddell, Trowbridge.
CGL	Maj. Gen. C. G. Lipscomb, C.B., D.S.O., Crockerton.
RAJ	Capt. R. A. Jackson, C.B.E., R.N. (Retd.), Codford.
CMRP	Mr. C. M. R. Pitman, Salisbury.
RY	Lady Young, Stratford Tony.
SNHS	Salisbury N.H.S.

PHENOLOGICAL REPORT

	Average date	*1967 emergence*	*Difference*
Large White	24·4	27·4	— 3
Marbled White	26·6	26·6	=
Meadow Brown	14·6	14·6	=
Cinnabar	18·5	25·5	— 7
Garden Carpet	27·4	27·4	=
Brimstone Moth	13·5	5·5	+ 8

Orange Tip	*Anthrocharis cardamines*	EJMB 16·4; CMRP 23·3 (an unusually early date).
Clouded Yellow	*Colias croceus*	CMRP 2·7, very small immigration 20·8; MC 17·9; FM 27·8; SNHS 7·9, var. *helice*.
Red Admiral	*Vanessa atalanta*	EJMB 30·6, 16·8 till 21·9. Sparse.
Painted Lady	*V. cardui*	CMRP 5·6, small immigration starting; SNHS 9·8; EJMB 19·8.
Peacock	*Nymphalis io*	EJMB 6·8 till 11·11.
Green Hairstreak	*Callophrys rubi*	CMRP 15·7. Larvae feeding on sloeberries.
Long-tailed Blue	*Lampides boeticus*	RY 13·9. An extremely rare immigrant. This is probably only the third record for Wiltshire this century.
New Small Skipper	*Thymelicus lineola*	BW 31·7. Numerous near Bratton.
Lobster	*Stauropus fagi*	MC 5·6.
Lunar Marbled Brown	*Chaonia ruficornis*	MC 13·5.
Lappet	*Gastropacha quercifolia*	SNH 20·7; DB 10·7.
Four-dotted Footman	*Cybosia mesomella*	DB 1·7, 10·7. A heathland insect rarely seen in Wiltshire except perhaps in the south.
Scarce Footman	*Eilema complana*	DB 11·7, 1·8.
Scarlet Tiger	*Panaxia dominula*	SNHS 26·6 in a new locality.
Ghost Swift	*Hepialis humuli*	CMRP. Larva feeding in dahlia tubers.
Garden Dart	*Euxoa nigricans*	DB 8·8.
White-lined Dart	*E. tritici*	DB 8·8. A moorland species scarce on the chalk.
Red Chestnut	*Cerastis rubricosa*	MC 9·5.
Blossom Underwing	*Orthosia miniosa*	MC 29·4.
Northern Drab	*O. advena*	MC 27·4.
Downland Wainscot	*Iria musculosa*	RAJ 15·7. Very early date in unexpected locality—Grovely Wood.
Small Mottled Willow	*Laphygma exigna*	DB 10·8.
Small Clouded Brindle	*Apamea unanimis*	MC 5·6.
Double-lobed	*A. ophiogramma*	DB 12·7.
Dusky Sallow	*Eremobia ochroleuca*	DB 1·8, 8·8; BW 16·8; numerous near Bratton.
Small Dotted Buff	*Petilampa minima*	CMRP 4·3. Freak emergence 3 months early.
Brown Crescent	*Celaena leucostigma*	DB 14·8, 27·8. A rare occurrence in Wiltshire.
Marbled Vert	*Cryphia muralis*	JR 10·8. Seems only to occur in north of county.
Miller	*Apatele leporina*	DB 8·8.
Sycamore	*A. aceris*	CMRP 26·6.
Alder	*A. alni*	MC 5·6; SNHS 30·5, 2·6; DB 15·6.
Pale Wormwood Shark	*Cucullia absinthii*	SNHS 7·7. Only the second record in Wiltshire.

Grey Chi	*Antitype chi*	JR 10·8.
Silver Y	*Plusia gamma*	MC 31·5; CMRP 20·8. Unusually scarce till end Aug., then suddenly abundant.
Dark Spectacle	*Unca triplasia*	DB 6·9.
Purple-bordered Wave	*Sterrha muricata*	CMRP 15·6.
Narrowbarred Carpet	*Nycterosea obstipata*	DB 30·5, 20·7.
Royal Mantle	*Euphyia cuculata*	BW 11·7. A chalk downland insect, never common.
Brown Scallop	*Philereme vetulata*	DB 19·7.
Wood Carpet	*Epirrhoe rivata*	BW 6·7.
Lunar Thorn	*Selenia lunaria*	DB 1·6 till 21·6. Seems to be only in the north of the county.

EPHEMERATA

(observations by KO of Salisbury N.H.S.)

Blue Winged Olive	*Ephemerella ignita*	Jan. and Feb. when mild. Main hatch 12·6.
Large Olive	*Baetis rhodani*	10th Feb. till end March.
May Fly	*Ephemera danica*	6th May.
Olive Dun	*Baetis vernus*	7th–9th May main hatch.
Iron Blue	*Baetis niger*	7th–9th May main hatch.
Hawthorn's Fly or St. Mark's Fly	*Bibis marci*	9th May.
Yellow Dun	*Heptagenia sulphera*	June.
Pale Watery Dun	*Baetis bioculatis*	July.
Small Olive	*B. saembus*	July.

OFFICERS' REPORTS FOR 1967

REPORT OF THE HON. SECRETARY

Since the Annual General Meeting in 1966 the Section membership has risen by 17 to 322 (305). The number of full members of the Society is 182 (167). The rest, 140 (138), are Section only members.

Mrs. E. C. Barnes has retired as Bird Recorder after 21 years of arduous service and has been succeeded by Mr. G. L. Webber.

Mrs. Barnes was appointed Assistant Editor of the Section's Annual Report and, as such, becomes an Officer of the Committee.

Mr. Cyril Rice (Chairman of the Section Committee 1951–55 and a member of the inaugurating Committee in 1946) was in July 1967 elected a Life Member by the Section Committee. This is the first Life Membership to be created.

The Countryside Survey on the uses of land continues jointly with the Wiltshire Trust for Nature Conservation, under the Nature Conservancy.

The production of a Bird Atlas for the British Isles has been started by the British Trust for Ornithology and Mrs. Barnes, as County Representative, is organizing this for Wiltshire.

REPORT OF THE HON. MEETINGS SECRETARY

During the year 28 field meetings were held: 10 botanical, 2 entomological, 8 ornithological, 3 of general interest, 2 geological, and one each concerned with mammals, freshwater life and fungi.

Without doubt the most popular outing was to Porton Ranges, a joint meeting with

the Salisbury N.H.S. Another meeting of general interest on War Department property was organized by Col. Kirkaldy and held jointly with the Wiltshire Trust for Nature Conservation at Blackball Firs and Shrewton Folly.

The two ornithological meetings held at Chew Valley Lake were well attended. The first, held in January, was a joint meeting with the Salisbury N.H.S. and 53 members from the two societies attended. Mr. Bernard King managed the large party in masterly fashion. The second was held in August for migrants. The visit to Frampton on Severn proved disappointing as the large flocks of White Fronted Geese usually there were not seen. An expedition was made to Stert Valley to listen to the evening bird song. Unfortunately, owing to persistent rain, little song was heard. During the autumn migration two ornithological meetings were held in the county, firstly at Rodbourne Sewage Farm, Swindon, which proved rather blank, and secondly at Inkpen Hill, also rather blank, owing to bad weather. Both were led by Mr. G. Webber.

A very interesting visit was made to the Savernake Deer Park, where the herds of Red and Fallow Deer were seen. Mr. Jim King talked to us about the habits of the two species. Afterwards a visit was made to the Forestry Commission's Deer Museum at Great Bedwyn.

It was a record year for joint meetings, there having been no less than 10: two each with Salisbury and Southampton N.H. Societies, three with Bath, one with the Wiltshire Trust for Nature Conservation, and two with the Westbury W.E.A. Besides these, members were invited to join Mr. Penistan in outings to Bowood and Westonbirt Arboretum, arranged for his course on trees and shrubs at Chippenham. The forestry outing to Midger Wood was spoilt by heavy rain, but the few who attended had an enjoyable afternoon.

The two geology meetings were led by Mr. R. S. Barron. In March he told us about the geology of the north scarp of Salisbury Plain; 42 members attended. In October members were shown the geology of the area to be covered by the M4 to the west of the Avon crossing near Seagry.

Two field demonstrations of how to conduct a census of the bird population in a given area were held at Oare and some recruits were gained to help with the census.

Members went twice to the disused railway line at Hazeland Bridge near Calne. The line and sleepers had been taken up, but despite this an increase in the plant growth on the track since 1966 was noted.

The entomological meeting for moths at Freshford was well attended, but the evening was too bright and a poor list of species was obtained. At the butterfly outing to Whiteparish Wood many White Admirals and Silver-washed Fritillaries were seen.

The Westbury W.E.A. invited us to two botanical outings near Westbury. The first was to Penleigh old iron workings, where besides an interesting flora the geology was noted and oyster beds and gypsum found. Later the West Wilts. Trading Estate provided an impressive list of unusual plants.

In July an enjoyable walk was taken on the Dorset border to Great Yews. During the spring Dauntsey's School very kindly entertained us for a meeting on freshwater life. All our finds were studied afterwards in the school laboratory. The Southampton Society invited us to their meeting at Worth Matravers and in return we invited them to Stockton Earthworks, and Ebbesbourne Wake was visited.

Our Fungus Foray was held in October at Savernake Forest. Because of the outbreak of foot-and-mouth disease, two meetings in November and December were cancelled.

We are grateful to the Bath N.H.S. for inviting us to attend their winter indoor meetings, which were of very varied interest, including botanical lectures and slides, talks on pesticides and wild life, and two films.

A lecture in conjunction with the British Trust for Ornithology was given at Adcroft School and was entitled 'Bird Migration and Ringing'. It was accompanied by excellent photographs taken by the lecturer, Mr. R. Faulkner.

Again I must extend my thanks to all who have helped me during the year as Leaders and to all who have given us permission to enter private land.

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b

c

a. Cherhill (Ch.). Section through Late Weichselian deposits. The dark sloping band at the bottom of the section is the soil formed during Zone Ib. Metre scale.

b. South Street (Ave. G.68). Section through involutions. Metre scale.

c. Greenland Farm. Section through brodel pockets. Scale in inches.

a

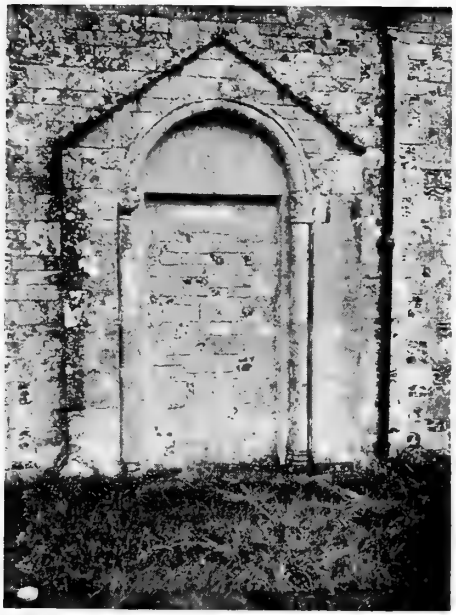
b

a. Overton Down (OD XII). Involutions exposed in plan. Metre scale.

b. Overton Down Experimental Earthwork (Ex.). Section through festoons in the side of the ditch. Scale 1.0 metre long.

Photograph by G. W. Dimbleby

PLATE III



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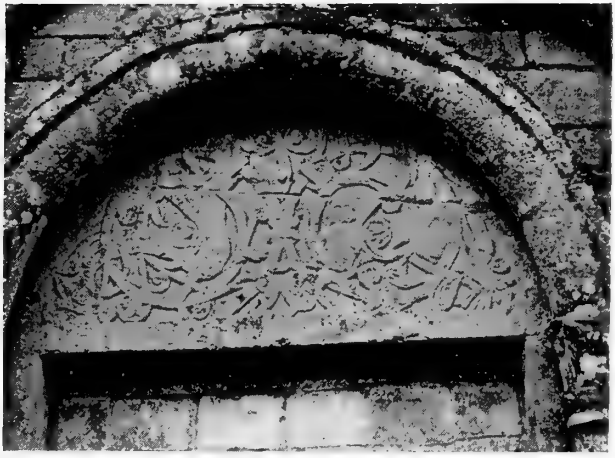
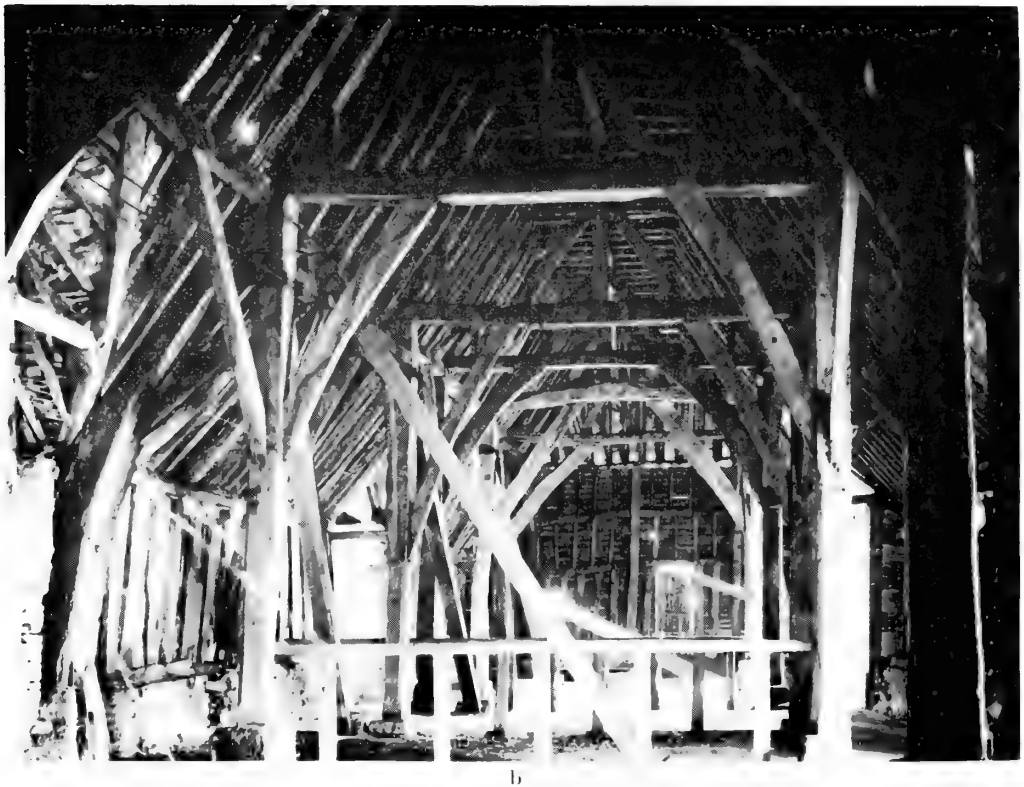


b

a. The blocked south doorway.
b. The tympanum.

a



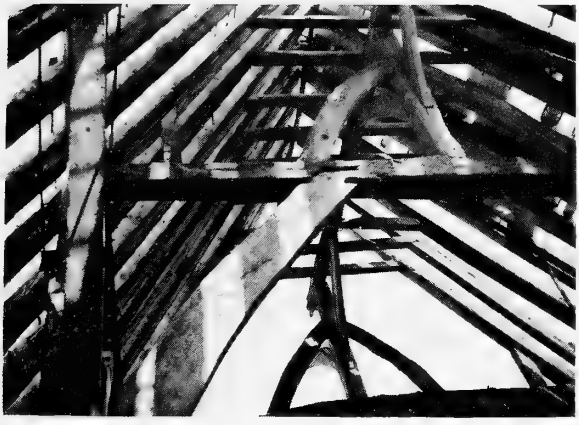
b

a. Exterior from N.W., showing stud-and-panel wall and N. porches.
b. Interior from E. (trusses VI–I).

PLATE V

a

b



c

d

a. Aisle-post III S, and base-cruck II S with added post.
Crown Copyright reserved

b. Aisle-post I N, showing bracing-joints and modern shore.
S. E. Rigold

c. Braced crown-post trusses I, II.
S. E. Rigold

d. Aisle-post I N, showing straight braces and scarf.
S. E. Rigold

PLATE VI

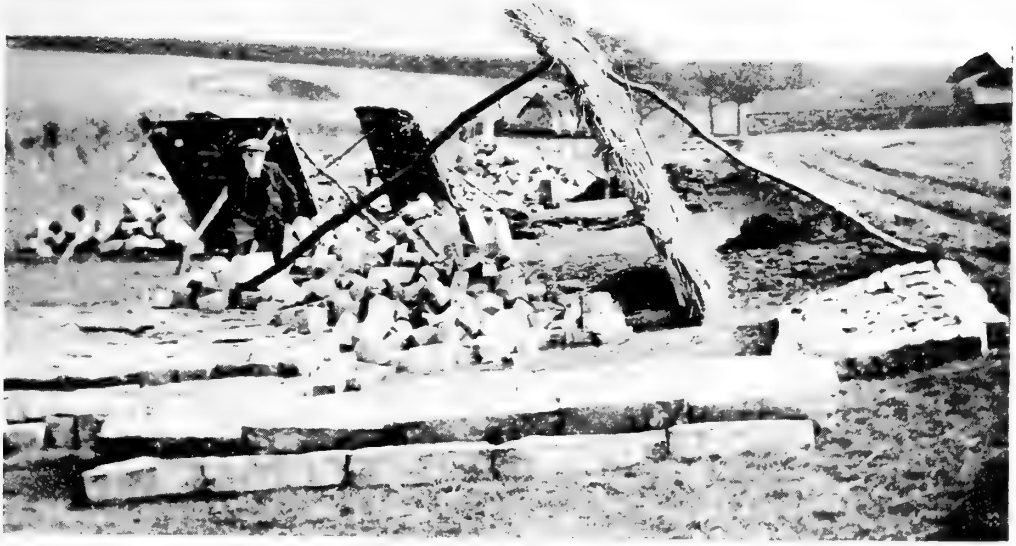
a

b

a. The working parts of the balance and the load-bearing hook.
b. The weight.

STEELYARD BALANCE FROM HUISH

Scale: about 3 : 5.



a

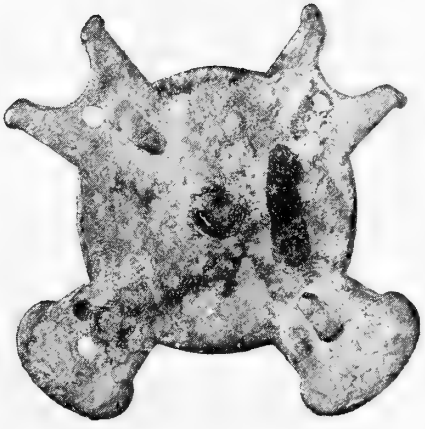
b

a. Sarsen cutting, Piggledene, 1908.
b. Fred and Harry Waite making setts at East Kennett, 1918. Note slicing chisel and tracing hammer.

Reverse

a Obverse

b



c

a. Celtic coin from Black Field, Mildenhall. Scale: about 1 : 1.
Photograph by S. S. Frere

b. Sherd of imitation samian from Green Ore, Somerset. Scale: about 1 : 1.
Photograph by H. S. Green

c. Dark Age mount from Broad Hinton School. Scale: about 1 : 1.
Photograph by L. J. Rutter

The Magazine

The Magazine is at present issued once a year. It is issued free to members of the Society. Contributions, editorial correspondence and books for review should be sent to the Editor at The Museum, 41 Long Street, Devizes. Back numbers of Magazines can be obtained from the Honorary Librarian, with the other publications listed below.

Notes for the guidance of contributors will be found on pp. 207-8 of Volume 60 (1965).

Publications to be obtained from the Librarian, The Museum, Devizes

A Guide Catalogue of the Neolithic and Bronze Age Collections at Devizes Museum, *by* F. K. Annable and D. D. A. Simpson. 1964. Post free, 26s. 6d.

A Bibliography of the Great Stone Monuments of Wiltshire: Stonehenge and Avebury, *by* W. J. Harrison. No. LXXXIX (1901) of *W.A.M.* 5s. 6d.

Wiltshire Inquisitiones Post Mortem: Henry III, Edward I and Edward II. 13s.

Ditto. Edward III. 13s.

The Church Bells of Wiltshire, their Inscriptions and History, *by* H. B. Walters. Parts II and III only. 14s.

Records of the County of Wilts, Extracts from the Quarter Sessions Great Rolls of the 17th Century, *by* B. H. Cunnington. 12s. 6d.

Devizes Borough Annals, Extracts from the Corporation Records, *by* B. H. Cunnington. Vol. II, 1792 to 1835. 15s. (Vol. I is out of print.)

The Wiltshire Archaeological and Natural History Society, 1853-1953. A Centenary History. 3s. 6d.

Bradon Forest, *by* T. R. Thomson. 1953. 10s. 6d.

Wiltshire Birds, *by* L. G. Peirson. 4s.

The Macrolepidoptera of Wiltshire, *by* Baron de Worms. Pp. xv, 177. 1962. 25s. (Members 20s.)

Parliamentary History of Cricklade, *by* W. B. Crouch. 1961. 12s.

A History of Savernake Forest, *by* The Marquess of Ailesbury. 1962. 12s. 6d.

The Society's Museum and Library, Long Street, Devizes

The Curator is Mr. F. K. Annable; the Honorary Librarian, Mr. R. E. Sandell.

All members of the Society are asked to give an annual subscription towards the upkeep of the Museum and Library collections. The Museum contains many objects of great local interest; and the Library a rich collection of books, articles and notes about the history of Wiltshire. Subscriptions should be sent to The Treasurer, The Museum, Devizes.

Old *printed* material and photographs of Wiltshire buildings or other objects of interest will be welcomed by the Librarian at the Museum. The repository for records, e.g. old deeds, maps, plans, etc., is the Wiltshire Record Office, County Hall, Trowbridge.

Natural History Section

The object of this Section is to promote the study of all branches of Natural History in the County by encouraging field observations, maintaining records, arranging field and other meetings and by putting observers in touch with each other. Members and others who wish for particulars of the Section and its activities should write to the Honorary Treasurer of the Section:

Mr. Arnold Smith, 49 Clarendon Avenue, Trowbridge.

Membership of the Section does not entail any further subscription from those who are already members of the Society.

Observations should be sent to the recorders:

BIRDS: Mr. G. L. Webber, 66 Southbrook Extension, Swindon.

FLOWERS: Mr. J. D. Grose, Downs Edge, Liddington, near Swindon.

LEPIDOPTERA: Mr. B. W. Weddell, 39 Victoria Road, Trowbridge.

MAMMALS, REPTILES AND AMPHIBIANS: Miss B. Gillam, 19 Roundway Gardens, Devizes.

Back numbers of reports can be obtained from the Hon. Editor of the Section, Mrs. Egbert Barnes, Hungerdown House, Seagry, Chippenham. Prices on application.

Wiltshire Record Society

The Annual General Meeting was at Compton House, Compton Chamberlayne, Salisbury, by kind hospitality of Mr. and Mrs. D. C. Berry on the 8th June 1968, when over 60 members and friends attended. The total membership was 260, the highest recorded. The Wiltshire County Council was thanked for a grant for 1968, and the Swindon Corporation for their annual grant. Mr. K. G. Ponting was elected to the Committee in place of Mr. Edgar Barnes. The address, entitled 'Wiltshire Cavaliers', was given by the military historian and author, Brigadier Peter Young, D.S.O., M.C., F.S.A.

It is hoped that unavoidable delays in publication will be overcome by 1969. Volume 22, the second part of Mrs. Brenda Farr's *Highworth Hundred Rolls, 1275-1287*, was issued in early April, and it is hoped to publish Volume 23 for 1967, *The Earl of Hertford's Lieutenancy Papers, 1603-1612*, edited by Mr. W. P. D. Murphy, during next winter. The popular Andrews & Dury's *Map of Wiltshire, 1773* (Volume 8) is being reprinted, and a waiting list is building up. Over 90 volumes have been sold, mainly to the United States and Canada. Twenty-one of the volumes are in print, and full particulars of these may be obtained of the Honorary Secretary, Miss T. E. Vernon, Dyer's Leaze, Lacock, Chippenham (Tel. Lacock 231). Membership is £2 per annum. Volumes on sale to non-members, £2 10s. each, plus postage.